ABSTRACT
        THIS CONCLUDING VOLUME OF A FIVE-VOLUME PROJECT
CONSISTS OF A CASE STUDY WHICH IS DESIGNED TO ELICIT FROM THE TEACHER
A PERFORMANCE BASED ON THE EXPERIENCE GAINED (FROM THE PREVIOUS
VOLUMES) IN WRITING PRESCRIPTIONS. THE TEACHER IS FURNISHED WITH DATA
ON A STUDENT DESIGNATED JOHN WHICH INCLUDE A PLACEMENT PROFILE,
PLACEMENT TEST, UNIT RECORD TEST, ANALYSIS OF JOHN'S BEHAVIOR, UNIT
PRETEST AND POSTTEST. THE TEACHER IS EXPECTED TO ANALYZE THE DATA AND
USE THEM IN PREPARING A PRESCRIPTION FOR JOHN. (GO)

TEACHING
IN IPI

Volume **V**

TEACHING IN IPI

(A Program of Teacher Preparation)

by

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Volume 5

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TEACHING IN IPI

Section IV

Developing a Prescription

Part 2 (Continued)

Section IV

DEVELOPING A PRESCRIPTION

CASE STUDY - TYPE 4

JOHN TANES

C-COP

Directions

This case study is organized in a format that draws upon your experience in writing prescriptions.

The following data is provided for you:

You will analyze this information and use it to write the unit prescription for John in C-COP.

Use the STS booklets for Skills 1-6 to simulate John's work on the skill sheets you prescribe. (pages 17-130)

Your prescriptions should reflect the variety of instructional decisions and settings that you have been working with to this point.

It will be helpful if you keep a record of your instructional decisions as you work through this case study. The form of this record is your decision.

Your prescriptions should be recorded on the blank Prescription Sheets located at the back of this case study. (pages 147-157)

1

John's Placement Profile is on page 3.

It indicates the units in which John needed work. Study the C-Level
Placement Test on page 4.

Refer to the Unit Test Record on pages 5-6. It shows John's unit
mastery to this point.

Use the Unit Test Record and the Placement Profile as a guide to
assigning the next Pretest to John.

ARITHMETIC PLACEMENT SCORE PROFILE

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MATHEMATICS

STUDENT NAME **John Tanes**

STUDENT NUMBER **4 4 4 4**

| | P-4 | 5 | 6 | 7 |

SCHOOL STAMP   P. 2-3

GRADE   P. **3 / 9**

ROOM   **2**

KEYPUNCH SAMPLE			TO P. 78
P. 14-15	P. 16	P. 17-18	
MATH. AREA CODE	PLACED AT LEVEL	% OF PLACEMENT	
O1	B	85	

MATHEMATICS AREA	DATE OF TEST (P. 10-13)	MATH AREA CODE		B	C	D	E	F	G	H	I	PLACED AT LEVEL
NUMERATION		Ø1	MAX. PTS.		10							C
			SCORE		4							
			%		40							
PLACE VALUE		Ø2	MAX. PTS.		10							C
			SCORE		7							
			%		70							
ADDITION		Ø3	MAX. PTS.		10							C
			SCORE		6							
			%		60							
SUBTRACTION		Ø4	MAX. PTS.		10							C
			SCORE		3							
			%		30							
MULTIPLICATION		Ø5	MAX. PTS.		X							D
			SCORE		X							
			%									
DIVISION		Ø6	MAX. PTS.		X							D
			SCORE		X							
			%									
COMBINATION OF PROCESSES		Ø7	MAX. PTS.		10							C
			SCORE		6							
			%		60							
FRACTIONS		Ø8	MAX. PTS.	10	10							B
			SCORE	5	2							
			%	50	20							
MONEY		Ø9	MAX. PTS.		10							C
			SCORE		7							
			%		70							
TIME		1Ø	MAX. PTS.		10	10						D
			SCORE		9	4						
			%		90	40						
SYSTEMS OF MEASUREMENT		11	MAX. PTS.		10							C
			SCORE		5							
			%		50							
GEOMETRY		12	MAX. PTS.		10	10						D
			SCORE		10	7						
			%		100	70						
ADDITION AND SUBTRACTION		34	MAX. PTS.	10								C
			SCORE	9								
			%	90								

3

NAME AND NUMBER *John Tanes*

unit page 1 of 1

DATE *9/30*

CLASS *3   Rm. 2*

Skill 4 — Directions: Write > or < in the ☐ to make a true number sentence.

2 PENNIES + 3 PENNIES $\boxed{=}$ 5 PENNIES – 1 PENNY $\boxed{>}$ ✗

18 INCHES – 7 INCHES $\boxed{>}$ 15 INCHES – 8 INCHES $\boxed{>}$

Skill 4 — Directions: Write = or ≠ in the ☐ to make a true number sentence.

7 DOZEN + 4 DOZEN $\boxed{\neq}$ 3 DOZEN + 2 DOZEN $\boxed{\neq}$

14 + 3 $\boxed{\neq}$ 18 – 1 $\boxed{=}$ ✗

11 – 9 $\boxed{=}$ 18 – 16 $\boxed{=}$

4

MATHEMATICS UNIT TEST RECORD

NAME: John Jones
NUMBER: 4444

CLASS 3-2

	Level		Post				Level		Post				Level		Post				Level		Post		
	1–Pre–2	1	2	3	4		1–Pre–2	1	2	3	4		1–Pre–2	1	2	3	4		1–Pre–2	1	2	3	4	

NUMERATION (Ø1) — PLACED AT LEVEL C — Max.Pts. / Score / Date

PLACE VALUE (Ø2) — PLACED AT LEVEL C — Max.Pts. / Score / Date

ADDITION (Ø3) — PLACED AT LEVEL C — Max.Pts. / Score / Date

SUBTRACTION (Ø4) — PLACED AT LEVEL C — Max.Pts. / Score / Date

MULTIPLICATION (Ø5) — PLACED AT LEVEL D — Max.Pts. / Score / Date

DIVISION (Ø6) — PLACED AT LEVEL D — Max.Pts. / Score / Date

COMBINATION OF PROCESSES (Ø7) — PLACED AT LEVEL C — Max.Pts. / Score / Date

UPDATE AND PLACE IN STUDENT FOLDER.

individually prescribed instruction
MATHEMATICS

MATHEMATICS UNIT TEST RECORD

NAME John Jones

NUMBER 4444

CLASS 3-2

		Level 1—Pre-2	Post 1 2 3 4				Level 1—Pre-2	Post 1 2 3 4				Level 1—Pre-2	Post 1 2 3 4				Level 1—Pre-2	Post 1 2 3 4	
FRACTIONS (50)																			
PLACED AT LEVEL B	Max.Pts. / Score / Date																		
MONEY (60)																			
PLACED AT LEVEL C	Max.Pts. / Score / Date																		
TIME (10)																			
PLACED AT LEVEL D	Max.Pts. / Score / Date																		
SYSTEMS OF MEASUREMENT (11)																			
PLACED AT LEVEL C	Max.Pts. / Score / Date																		
GEOMETRY (12)																			
PLACED AT LEVEL D	Max.Pts. / Score / Date																		
SPECIAL TOPICS (13)																			
PLACED AT LEVEL	Max.Pts. / Score / Date																		
ADDITION AND SUBTRACTION (34)																			
PLACED AT LEVEL C	Max.Pts. / Score / Date																		

UPDATE AND PLACE IN STUDENT FOLDER.

6

Analysis of Student Behavior

1. The behaviors which will help John's learning...

    He is an enthusiastic learner and is able to apply
    himself to a learning situation until he has mastered
    it.

2. The behaviors which will hamper John's learning...

    His reading ability is not equal to his math skill.
    He has difficulty learning from printed materials.

3. The new behaviors which John will learn in conjunction with
    the IPI math learnings...

    He needs to increase his vocabulary skills.

Describe how your prescriptions will attempt to
reflect these behaviors...

1. _____
_____
_____
_____
_____
_____
_____
_____

2. _____
_____
_____
_____
_____
_____
_____
_____

3. _____
_____
_____
_____
_____
_____
_____
_____

This is a copy of the Pretest completed by John and corrected by the Aide. Record (in the role of Aide) the Pretest results on the first Prescription Sheet in your packet.

Analyze the Pretest results and write the first prescription.

SCHOOL CODE   NAME __*John Tares*__

NUMBER __*4444*__   CLASS __*3*__   __*En. 2*__

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MATHEMATICS

Pre-Test

LEVEL C

COMBINATION OF PROCESSES (07)

DEVELOPMENTAL EDITION

ERIC

Directions: Add or subtract, as indicated by the sign.

C I R C L E	TL. PTS.	
	6	100%
	NO. OF PTS.	%
C	5	83
O	4	67
R	3	50
R	2	33
E	1	17
C T		
B O X		

$$\begin{array}{r} 37 \\ + 22 \\ \hline 59 \end{array}$$

$$\begin{array}{r} 63 \\ - 20 \\ \hline 43 \end{array}$$

$$45 + 34 = \underline{78} \quad \times$$

$$17 - 12 = \underline{5}$$

$$\begin{array}{r} 62 \\ - 52 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 48 \\ + 21 \\ \hline 27 \end{array} \times$$

Directions: Add or subtract.

$$\begin{array}{r} 4 \text{ yards} \\ + 5 \text{ yards} \\ \hline 9 \text{ yards} \end{array}$$

$$\begin{array}{r} 12 \text{ cents} \\ + 5 \text{ cents} \\ \hline 7 \text{ cents} \end{array} \quad X$$

$$\begin{array}{r} 18 \text{ dozen} \\ - 6 \text{ dozen} \\ \hline 12 \text{ dozen} \end{array}$$

$$\begin{array}{r} 4 \text{ feet} \\ + 6 \text{ feet} \\ \hline 10 \text{ feet} \end{array}$$

13 yards − 2 yards = __12__ yards X

6 inches + 7 inches = __13__ inches

8 feet − 5 feet = __13__ feet X

Directions: Solve each problem.

John has 10 pennies. Judy has 5
pennies. How many pennies have
John and Judy together? ___*15*___ pennies

Susan has a ruler 12 inches long.
Her doll's bed is 6 inches longer
than the ruler. How many inches
long is her doll's bed? ___*18*___ inches

Jim hiked 6 miles in the morning
and 8 miles in the afternoon. How
many miles farther did Jim hike
in the afternoon than in the
morning? ___*2*___ miles

Dick had to miss 5 days of school
one week and 4 days the next
week. How many days of school
did Dick miss during the two
weeks? ___*9*___ days

C I R C L E	TL. PTS.	
	4	100%
	NO. OF PTS.	%
	3	75
C O R R E C T	2	50
	1	25
B O X		

Directions: Put >, <, or = in each circle to make a true number sentence.

5 weeks + 4 weeks (=) 10 weeks − 1 week

15 pennies − 4 pennies (>) 5 pennies + 5 pennies

9 yards − 3 yards (=) 2 yards + 4 yards

3 feet + 4 feet (<) 6 feet − 5 feet ✗

6 miles + 7 miles (=) 18 miles − 4 miles ✗

Directions: Put = or ≠ in each circle to make a true number sentence.

8 inches − 2 inches (=) 10 inches − 8 inches ✗

6 dimes + 3 dimes (=) 11 dimes − 2 dimes

C I R C L E	TL. PTS.	
	7	100%
	NO. OF PTS.	%
	6	86
	5	71
C O R R E C T	4	57
	3	43
	2	29
B O X	1	14

Directions: Put + or − in each circle to make a true number sentence.

C	TL. PTS.	
I R C L E	5	100%
	NO. OF PTS.	%
	4	80
C	3	60
O R R E C T	2	40
	1	20
	0	0
B O X		

8 (−) 5 = 13 ✗

9 (+) 7 = 2 ✗

9 (+) 3 = 6 ✗

11 (−) 3 = 14 ✗

6 (−) 4 = 10 ✗

15

Directions: Fill in the blanks to make each number sentence true.

$5 - 1 = 2 + \underline{3}$ X

$4 - \underline{2} = 2 + 1$ X

$6 - \underline{2} = 4 + 2$ X

$1 + 6 = \underline{6} - 3$ X

$\underline{9} + 2 = 9 - 4$ X

16

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Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL C

COMBINATION OF PROCESSES (07)

SKILL 1

DEVELOPMENTAL EDITION

TO THE STUDENT

Find the sums and differences.

$$\begin{array}{r} 32 \\ +\ 45 \\ \hline \end{array}$$

$$\begin{array}{r} 94 \\ -\ 51 \\ \hline \end{array}$$
$$\begin{array}{r} 88 \\ -\ 36 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ +\ 66 \\ \hline \end{array}$$

You will practice these types of problems in this booklet.

Answer

	77	
43		52
	89	

When you add, always add the <u>ones</u> column first, then the <u>tens</u> column.

<u>EXAMPLE</u>

$$36 \quad \rightarrow \quad 3|6| \quad \rightarrow \quad |3|6 \quad 36$$
$$+21 \qquad +2|1| \qquad +|2|1 \quad so \quad +21$$
$$\qquad\qquad |7| \qquad\qquad |5| \qquad\qquad 57$$

Find the sums and write the numerals in the boxes.

         ones   tens

$$43 \quad \rightarrow \quad 4|3| \quad \rightarrow \quad |4|3 \quad so \quad 43$$
$$+52 \qquad +5|2| \qquad +|5|2 \qquad +52$$
$$\qquad\qquad \boxed{5} \qquad \boxed{9}5 \qquad \boxed{95}$$

$$74 \quad \rightarrow \quad 7|4| \quad \rightarrow \quad |7|4 \quad so \quad 74$$
$$+13 \qquad +1|3| \qquad +|1|3 \qquad +13$$
$$\qquad\qquad \boxed{7} \qquad \boxed{8} \qquad \boxed{87}$$

$$62 \quad \rightarrow \quad 6|2| \quad \rightarrow \quad |6|2 \quad so \quad 62$$
$$+35 \qquad +3|5| \qquad +|3|5 \qquad +35$$
$$\qquad\qquad \boxed{7} \qquad \boxed{9} \qquad \boxed{97}$$

$$37 \quad \rightarrow \quad 3|7| \quad \rightarrow \quad |3|7 \quad so \quad 37$$
$$+41 \qquad +4|1| \qquad +|4|1 \qquad +41$$
$$\qquad\qquad \boxed{8} \qquad \boxed{7} \qquad \boxed{78}$$

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
C	07	1	1

When you subtract, always subtract the <u>ones</u> column first, then the <u>tens</u> column.

		ones	tens	

EXAMPLE   47   →   4⌐7¬   →   ⌐4¬7   so   47
          − 34   − 3⌊4⌋   −⌊3⌋4   − 34
                      [3]   [1]   [13]

Do the subtraction problem and write the numerals in the boxes.

ones   tens

88   →   8⌐8¬   →   ⌐8¬8   so   88
− 56   − 5⌊6⌋   −⌊5⌋6   − 56
           [2]   [3]   [32]

96   →   9⌐6¬   →   ⌐9¬6   so   96
− 53   − 5⌊3⌋   −⌊5⌋3   − 53
           [3]   [4]   [43]

49   →   4⌐9¬   →   ⌐4¬9   so   49
− 27   − 2⌊7⌋   −⌊2⌋7   − 27
           [2]   [2]   [22]

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
C	07	1	2

Find the sums and differences.

9 + 3 **12**	17 + 42 **59**	17 − 11 **6**
18 − 11 **7**	41 + 48 **89**	59 + 40 **99**
40 + 50 **90**	17 − 6 **11**	86 − 3 **83**

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
C	07	1	3

21

Find the missing sums and differences.

$$10 + 6 = 16$$ $$41 + 21 = 62$$

$$30 - 10 = 20$$

$$18 - 6 = 12$$ $$20 + 31 = 51$$

$$\begin{array}{r} 12 \\ + 30 \\ \hline 42 \end{array}$$ $$\begin{array}{r} 88 \\ - 7 \\ \hline 81 \end{array}$$ $$\begin{array}{r} 90 \\ + 6 \\ \hline 96 \end{array}$$

$$\begin{array}{r} 18 \\ - 11 \\ \hline 7 \end{array}$$ $$\begin{array}{r} 40 \\ + 23 \\ \hline 63 \end{array}$$

$$65 - 12 = 53$$ $$22 - 11 = 11$$

$$49 + 10 = 59$$

$$54 + 11 = 65$$ $$81 + 8 = 89$$

TOTAL POINTS	NUMBER CORRECT
15	

LEVEL	UNIT	SKILL	PAGE
C	07	1	4

22

Find the sums and differences.

$$\begin{array}{r} 40 \\ + 40 \\ \hline 80 \end{array}$$
$$\begin{array}{r} 36 \\ - 11 \\ \hline 25 \end{array}$$
$$\begin{array}{r} 17 \\ + 70 \\ \hline 87 \end{array}$$

$20 - 10 = 10$

$38 + 10 = 48$

$46 + 3 = 49$

$$\begin{array}{r} 20 \\ + 63 \\ \hline 83 \end{array}$$
$$\begin{array}{r} 82 \\ + 12 \\ \hline 94 \end{array}$$
$$\begin{array}{r} 87 \\ - 2 \\ \hline 85 \end{array}$$

$39 - 8 = 31$

$46 - 5 = 41$

$60 - 30 = 30$

$$\begin{array}{r} 11 \\ + 80 \\ \hline 91 \end{array}$$

$89 - 9 = 80$

$76 + 11 = 87$

$49 - 39 = 10$

$18 - 7 = 11$

For extra practice, do Page 12.

TOTAL POINTS	NUMBER CORRECT
17	

LEVEL	UNIT	SKILL	PAGE
C	07	1	5

23

In the boxes write the numerals missing to make 48.

$\boxed{43}$ + 5 = 48   59 − $\boxed{11}$ = 48   16 + $\boxed{32}$ = 48

$\boxed{98}$ − 50 = 48 $\boxed{68}$ − 20 = 48

$\boxed{27}$ + 21 = 48   32 + $\boxed{16}$ = 48   68 − $\boxed{20}$ = 48

48

$\boxed{20}$ + 28 = 48 $\boxed{28}$ + 20 = 48

30 + $\boxed{18}$ = 48

$\boxed{78}$ − 30 = 48   89 − $\boxed{41}$ = 48

24 + $\boxed{24}$ = 48

TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
C	07	1	6

24

Fill in the missing numerals.

$$\begin{array}{r} 49 \\ + 30 \\ \hline \boxed{} \end{array}$$

$$46 - \boxed{} = 30$$

$$\begin{array}{r} 50 \\ + \boxed{} \\ \hline 69 \end{array}$$

$$64 + \boxed{} = 85$$

$$\begin{array}{r} 22 \\ - 12 \\ \hline \boxed{10} \end{array}$$

$$\boxed{24} - 12 = 12$$

$$\begin{array}{r} 36 \\ - \boxed{} \\ \hline 21 \end{array}$$

$$49 + \boxed{} = 79$$

$$99 - \boxed{} = 88$$

$$\begin{array}{r} 32 \\ + \boxed{} \\ \hline 48 \end{array}$$

$$14 + \boxed{} = 29$$

$$\begin{array}{r} 33 \\ + 23 \\ \hline \boxed{} \end{array}$$

$$31 - \boxed{} = 10$$

For extra practice, do Page 13.

TOTAL POINTS	NUMBER CORRECT
13	

LEVEL	UNIT	SKILL	PAGE
C	07	1	7

25

Fill in the missing numerals.

$$99 - \boxed{11} = 88 \qquad\qquad 80 - 20 = \boxed{60}$$

$$\begin{array}{r} 81 \\ + \boxed{18} \\ \hline 99 \end{array} \qquad \begin{array}{r} 26 \\ - 11 \\ \hline \boxed{15} \end{array} \qquad \begin{array}{r} 33 \\ + 33 \\ \hline \boxed{66} \end{array}$$

$$13 + \boxed{14} = 27$$

$$35 - 15 = \boxed{20} \qquad \begin{array}{r} 76 \\ + \boxed{11} \\ \hline 87 \end{array} \qquad 98 - \boxed{18} = 80$$

$$\begin{array}{r} 80 \\ + \boxed{19} \\ \hline 99 \end{array} \qquad\qquad \begin{array}{r} 23 \\ + \boxed{11} \\ \hline 34 \end{array}$$

TOTAL POINTS	NUMBER CORRECT
11	

LEVEL	UNIT	SKILL	PAGE
C	07	1	8

26

Fill in the correct numerals.

$$\begin{array}{r} 99 \\ -12 \\ \hline \boxed{87} \end{array}$$

$$\begin{array}{r} 26 \\ +11 \\ \hline \boxed{37} \end{array}$$

$$\begin{array}{r} 80 \\ -\boxed{20} \\ \hline 60 \end{array}$$

$$13 + \boxed{14} = 27$$

$$\begin{array}{r} 51 \\ +\boxed{40} \\ \hline 91 \end{array}$$

$$49 + 20 = \boxed{69}$$

$$29 - \boxed{18} = 11$$

$$\begin{array}{r} 92 \\ +\boxed{5} \\ \hline 97 \end{array}$$

$$\begin{array}{r} 48 \\ -\boxed{28} \\ \hline 20 \end{array}$$

$$\begin{array}{r} 98 \\ -\boxed{18} \\ \hline 80 \end{array}$$

$$41 - \boxed{11} = 30$$

$$36 + \boxed{12} = 48$$

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
C	07	1	9

27

Write the missing numerals in the boxes.

$$\begin{array}{r} 49 \\ -\boxed{} \\ \hline 22 \end{array} \qquad \begin{array}{r} 46 \\ -36 \\ \hline \boxed{10} \end{array}$$

$$36 + 30 = \boxed{66}$$

$$\boxed{41} + 58 = 99 \qquad 58 - \boxed{22} = 36$$

$$\begin{array}{r} 98 \\ -\boxed{17} \\ \hline 81 \end{array}$$

$$\boxed{78} - 55 = 23$$

$$\begin{array}{r} \boxed{51} \\ +42 \\ \hline 93 \end{array}$$

For extra practice, do Page 14.

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
C	07	1	10

CET I

Add or subtract.

	TL PTS	
14	100*
NO OF PTS	:
13	93
12	86
11	79
10	71
9	64
8	57
7	50
6	43
5	36
4	29
3	21
2	14
1	7

$$63 + 35 = $$

$$39 - 25 = $$

$$47 - 31 = $$

$$28 + 71 = $$

$$62 + 37 = \underline{\quad}$$ $$37 - 14 = \underline{\quad}$$

$$\underline{\quad} + 11 = 32$$ $$16 + \underline{\quad} = 38$$

$$23 - 2 = $$

$$48 + 20 = $$

$$53 - 23 = $$

$$85 + 4 = $$

$$26 + 42 = \underline{\quad}$$ $$93 - 81 = \underline{\quad}$$

Add or subtract as the sign tells you.

	TL PTS	
4	100*
NO OF PTS.	:
3	75
2	50
1	25

10 inches
− 8 inches
___ inches

11¢
+ 7¢
__¢

18 pennies
− 8 pennies
___ pennies

12 squares + 5 squares = _____ squares

LEVEL	UNIT	SKILL	PAGE
C	07	1	11

29

Find the sums and differences.

$38 + 11 =$ __49__

$41 + 11 =$ __52__

$49 - 15 =$ __34__

$11 + 13 =$ __24__

$8 + 90 =$ __98__

$99 - 12 =$ __87__

$91 - 21 =$ __70__

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAG.
C	07	1	12

Fill in the missing numerals.

$3 + \boxed{91} = 94$

$$\begin{array}{r} 18 \\ - \boxed{11} \\ \hline 7 \end{array}$$

$$\begin{array}{r} 83 \\ - 11 \\ \hline \boxed{72} \end{array}$$

$\boxed{84} - 20 = 64$

$$\begin{array}{r} 11 \\ + \boxed{78} \\ \hline 89 \end{array}$$

$11 + \boxed{23} = 34$

$$\begin{array}{r} \boxed{28} \\ + 70 \\ \hline 98 \end{array}$$

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
C	07	1	13

Write the missing numerals.

$48 + \boxed{11} = 59$ $\boxed{53} - 42 = 11$

$$\begin{array}{r} 89 \\ -\ 13 \\ \hline \boxed{76} \end{array}$$

$$\begin{array}{r} 37 \\ -\ \boxed{16} \\ \hline 21 \end{array}$$

$$\begin{array}{r} 18 \\ -\ 7 \\ \hline \boxed{11} \end{array}$$

$\boxed{45} + 12 = 57$

$31 + \boxed{55} = 86$

$$\begin{array}{r} 99 \\ -\ \boxed{47} \\ \hline 52 \end{array}$$

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SK.	PAGE
C	07	1	14

CET II

Add or subtract as the sign tells you.

$$\begin{array}{r} 69 \\ -42 \\ \hline \end{array} \qquad \begin{array}{r} 24 \\ +3 \\ \hline \end{array} \qquad \begin{array}{r} 37 \\ -24 \\ \hline \end{array} \qquad \begin{array}{r} 12 \\ +33 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ +15 \\ \hline \end{array} \qquad \begin{array}{r} 42 \\ -2 \\ \hline \end{array} \qquad \begin{array}{r} 76 \\ +23 \\ \hline \end{array} \qquad \begin{array}{r} 63 \\ -32 \\ \hline \end{array}$$

$17 - 9 =$ _____ $\qquad$ $32 - 12 =$ _____

$27 + 42 =$ _____ $\qquad$ _____ $+ 8 = 8$

$8 +$ _____ $= 15$ $\qquad$ _____ $- 56 = 1$

CIRCLE CORRECT BOX	TL PTS	
	14	100
	NO OF PTS	
	13	93
	12	86
	11	79
	10	71
	9	64
	8	57
	7	50
	6	43
	5	36
	4	29
	3	21
	2	14
	1	7

Add or subtract as the sign tells you.

$$\begin{array}{r} 6 \text{ feet} \\ -3 \text{ feet} \\ \hline \end{array} \qquad \begin{array}{r} 4 \text{ minutes} \\ +7 \text{ minutes} \\ \hline \end{array} \qquad \begin{array}{r} 8\text{¢} \\ +6\text{¢} \\ \hline \end{array}$$

_____ feet $\qquad$ _____ minutes $\qquad$ _____ ¢

16 inches − 9 inches = _____ inches

CIRCLE CORRECT BOX	TL PTS	
	4	100%
	NO OF PTS	%
	3	75
	2	50
	1	25

LEVEL	UNIT	SKILL	PAGE
C	07	1	15

LEVEL C, COMBINATION OF PROCESSES, SKILL 1

OBJECTIVE: Adds or subtracts as indicated for mixed sets of problems with sums to 99. No borrowing or carrying. Problems in vertical or horizontal form and may contain missing addends.
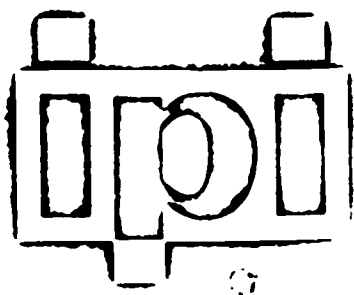

STANDARD TEACHING SEQUENCE

Page		Supplementary Material
1. Does two-step addition.		
2. Does two-step subtraction.		
3. Finds the sums and differences.		
4. Finds the sums and differences.		
5. Finds the sums and differences.		12
6. Fills in missing addend.		
7. Fills in missing addend.		13
8. Finds sums and differences or fills in missing addends.		
9. Finds sums and differences or fills in missing addends.		
10. Finds sums and differences or fills in missing addends.		14
11. CET I.		
CET II.		15

Circle pages that have to be done.

MATHEMATICS

Standard Teaching Guide and Book

Based upon materials developed by The Mathematics Curriculum Staff, Learning Research and Development Center. University of Pittsburgh. Josepn I. Lipson, Ph.D., Director; Edith Kohut; Barbara Thomas.

Written by the staff of Appleton-Century Crofts under the direction of Jerome D. Kaplan, Ed D., Teachers College, Columbia University

DEVELOPMENTAL EDITION

SCHOOL CODE

NAME _____

NUMBER _____ CLASS _____
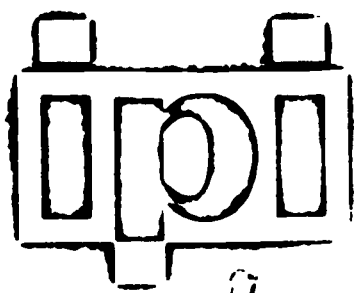
MATHEMATICS

Standard Teaching Guide and Booklet

DEVELOPMENTAL EDITION

TO THE STUDENT

Write the answers in the blanks.

17 days	4 squares
−10 days	+8 squares
_____ days	_____ squares

You will practice doing problems like these in this booklet.

Answers

7, 12

Find the sums and the differences.

15¢	7¢	5¢	14¢
− 8¢	+ 9¢	+ 6¢	− 6¢
7¢	*16¢*	*11¢*	*8¢*

9¢			18¢
+ 4¢			− 6¢
13¢			*12¢*

cents

7¢ + 7¢ = *14* ¢   15¢ − 3¢ = *12* ¢

13¢ + 4¢ = *17* ¢

15¢ − 10¢ = *5* ¢   8¢ + 8¢ = *16* ¢

TOTAL POINTS	NUMBER CORRECT
11	

LEVEL	UNIT	SKILL
C	07	2

38

Find the sums and the differences.

9 hours		12 days
+ 7 hours	**time**	− 9 days
_16_ hours		_3_ days

14 hours − 5 hours = _9_ hours

8 months	6 minutes	17 years
+ 4 months	+ 7 minutes	− 15 years
_12_ months	_13_ minutes	___ years

3 weeks + 10 weeks = _13_ weeks

15 years − 8 years = _7_ years

5 days + 5 days = _10_ days

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
C	07	2	2

39

Find the sums and the differences.

11 circles	16 squares	12 triangles
+ 6 circles	− 2 squares	+ 4 triangles
_17_ circles	_14_ squares	_16_ triangles

geometry

9 rectangles + 3 rectangles = _12_ rectangles

18 triangles − 7 triangles = _11_ triangles

5 circles	16 squares	9 circles
+ 8 circles	− 8 squares	+ 5 circles
_13_ circles	_8_ squares	_14_ circles

TOTAL POINTS	NUMBER CORRECT
8	

	UNIT	SKILL	PAGE
C	07	2	3

4(

Find the sums and the differences.

3 yards	17 feet	15 dozen
+ 8 yards	− 4 feet	− 9 dozen
11 yards	*13* feet	*6* dozen

measurement

8 inches	9 feet	15 yards
+ 7 inches	− 6 feet	− 1 yard
15 inches	*3* feet	*14* yards

10 dozen	7 inches	18 feet
− 4 dozen	+ 4 inches	− 9 feet
6 dozen	*11* inches	*9* feet

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
C	.07	2	4

41

Find the sums and the differences.

17 months	11¢	12 hours
− 8 months	+ 4¢	− 7 hours
9 months	*15*¢	*5* hours

4 circles + 9 circles = *13* circles

14 months − 11 months = *3* months

8 triangles + 5 triangles = *13* triangles

11 dozen	15¢	5 inches
+ 6 dozen	− 9¢	+ 7 inches
17 dozen	*6*¢	*12* inches

For extra practice, do Pages 7, 8, and 9.

TOTAL POINTS	NUMBER CORRECT
0	

LEVEL	UNIT	SKILL	PAGE
C	07	2	5

CET I

Solve each problem.

2 minutes + 10 minutes = _____ minutes

13 feet − 7 feet = _____ feet

12¢	12 apples	8 dogs
+ 5¢	− 4 apples	− 4 dogs
____ ¢	____ apples	____ dogs

18 hours	11 circles	12 dimes
− 7 hours	− 6 circles	− 10 dimes
____ hours	____ circles	____ dimes

4 eggs + 13 eggs = _____ eggs

14 days − 12 days = _____ days

	TL. PTS.	
C I R C L E C O R R E C T B O X	10	100%
	NO. OF PTS.	%
	9	90
	8	90
	7	70
	6	60
	5	50
	4	40
	3	30
	2	20
	1	10

Solve these word problems.

Sue had 12 pieces of candy. She gave 5 pieces to Bill. How many did she have left?_____pieces.

Bill had 6 red boats and 7 green boats. boats did he have in all?_____ boats.

LEVEL	UNIT	SKILL	PAGE
C	07	2	6

43

Write the answers in the blanks.

5 hours	14 months	6 triangles
+ 4 hours	+ 3 months	+ 8 triangles
_9_ hours	_17_ months	_14_ triangles

7 years	**add**	8 inches
+ 10 years		+ 4 inches
17 years		_12_ inches

9¢

+ 8¢

_17_ ¢

12 squares + 4 squares = _16_ squares

6 feet + 5 feet = _11_ feet

Fill in the blanks.

15 minutes – 3 minutes = _12_ minutes

10 rectangles – 7 rectangles = _3_ rectangles

11 yards – 4 yards = _7_ yards

18¢ – 15¢ = _3_ ¢

subtract

12 circles
– 5 circles

_7_ circles

14 years
– 8 years

_6_ years

13 feet
– 9 feet

_4_ feet

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
C	07	2	8

45

Find the sums and the differences.

13¢	12 feet	11 hours	8¢
+ 5¢	− 6 feet	− 5 hours	+ 10¢
_18_ ¢	_6_ feet	_6_ hours	_18_ ¢

3 circles + 11 circles = _14_ circles

17 days − 12 days = _5_ days

18 yards − 4 yards = _14_ yards

6 squares	18 feet
+ 7 squares	− 17 feet
_13_ squares	_1_ feet

7 years + 10 years = _17_ years

18¢ − 6¢ = _12_ ¢

TOTAL POINTS	NUMBER CORRECT
11	

LEVEL	UNIT	SKILL	PAGE
C	07	2	9

46

CET II

Find the sums or differences.

3 oranges + 7 oranges = _____ oranges

18 inches – 6 inches = _____ inches

4 circles + 12 circles = _____ circles

3¢ + 12¢ = _____ ¢   25¢ – 10¢ = _____

	TL. PTS.	
C	10	100%
I	NO. OF	
R	PTS.	%
C		
L	9	90
E	8	80
C	7	70
O	6	60
R	5	50
R	4	40
E	3	30
C	2	20
T	1	10
BOX		

4 dimes	8 yards	4 pennies
+ 6 dimes	+ 5 yards	– 0 pennies
_____ dimes	_____ yards	_____ pennies

7 apples - 5 apples = _____ apples

10 books + 0 books = _____ books

Solve each word problem.

Jimmy had 10¢. He spent 6¢ for an ice-cream cone. How much money did he have left? _____ ¢

	TL. PTS.	
C	2	100%
I	NO. OF	
R	PTS.	%
C	1	50
L		
E		
C		
O		
R		
R		
E		
C		
T		
BOX		

Jane had two pet ducks named Sue and Sally. One week Susie laid 5 eggs and Sally laid 3 eggs. How many eggs did they lay in all? _____ eggs

LEVEL	UNIT	SKILL	PAGE
C	07	2	10

47

LEVEL C, COMBINATIONS OF PROCESSES, SKILL 2

OBJECTIVE: Finds the sums and differences for problems involving money values, m
surement units, time, and geometry, learned in Level B. Sums to 18. N
conversion of units.

STANDARD TEACHING SEQUENCE

Page

Supplemer. 1ry
Materia.

1. Finds sums and differences involving money values (cents).

2. Finds sums and differences involving time.

3. Finds sums and differences involving names of geometrical figures.

4. Finds sums and differences involving measurement units.

5. Finds sums and differences involving money values, time, names of geometrical figures, and measurement units.   7, 8, 9

6. CET I.

CET II.   10

Circle pages that are to be done.

Standard Teaching Sequence, Con't

1967 - 68

Textbook Resources:

Book	Teaching Pages	Practice Page
Harcourt, Brace & World, 1965 Two By Two (Grade 2)		135

D-COP-2

Standard Teaching Sequence, Con't.

1967 - 68

Teaching Aids:

See D-COP-1

Textbook Resources:

Book	Teaching Pages	Practice Pages
Harcourt, Brace & World, 1966 Elementary Mathematics - 3		104, 226, 329 (sets 9 & 11)
Harcourt, Brace & World, 1966 Elementary Mathematics - 4		20, 330 (set 9)

ipi

Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL C

COMBINATION OF PROCESSES (07)

SKILL 3

Appleton-Century-Crofts (ACC) Division of Meredith Publishing Company

DEVELOPMENTAL EDITION

TO THE STUDENT

John had 3 toy cars. Sam had 9 toy cars. How many more cars did Sam have than John. ____

In this booklet you will learn how to do problems like this.

There is a prerecorded tape for this booklet.

Answers

6

Solve these problems.

Work Space

The Smith family went on a vacation.
They spent four days in Pittsburgh
and 9 days in Washington, D. C. How
many days were they gone?

4 days
+ 9 days
-----
13 days

John's boat was 16 feet long.
Joe's boat was 7 feet long. How
much longer was John's boat
than Joe's boat?

16 ft.
- 7 ft.
-----
9 ft.

Jan had 15 quarts of milk for
her party. She used 6 quarts.
How many quarts of milk are left?

15 quarts
- 6 quarts
-----
9 quarts

TOTAL POINTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
C	07	3	1

Solve these problems.

Work Space

Betsy had 18¢. She decided to
buy a card for her mother. The
card cost 9¢. How much did
Betsy have left?

$$\begin{array}{r} 18¢ \\ -\ 9¢ \\ \hline 9¢ \end{array}$$

Jane found 13 quarters. She gave
7 of them to Sally. How many
quarters did Jane have left?

$$\begin{array}{r} 13 \text{ quarters} \\ -\ 7 \text{ quarters} \\ \hline 6 \text{ quarters} \end{array}$$

It took Joe 13 minutes to walk
to school. It took Jim 7 minutes.
How much longer did it take Joe
than Jim?

$$\begin{array}{r} 13 \text{ minutes} \\ -\ 7 \text{ minutes} \\ \hline 6 \text{ minutes} \end{array}$$

TAL .INTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
C	07	3	4

54

Solve these problems.

Work Space

Jan had 8 dozen blocks and Sue
had 8 dozen blocks. How many
blocks did both girls have
together?

$$\begin{array}{r} 8\,dz. \\ +\ 8\,dz. \\ \hline 16\ dz. \end{array}$$

Dick had 8 nickels and Tom
had 7 nickels. How many
nickels did both boys have
together?

$$\begin{array}{r} 8\ nickels \\ +\ 7\ nickels \\ \hline 15\ nickels \end{array}$$

Jim had 15¢. He bought some
ribbon for 6¢. How many cents
does he have left?

$$\begin{array}{r} 15¢ \\ -\ 6¢ \\ \hline 9¢ \end{array}$$

TOTAL POINTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
C	07	3	3

55

Solve these problems.

Sally has lived on Oak Street for
9 months. Jack has lived there for
7 months. How many more months
than Jack has Sally lived on Oak
Street?

$$\begin{array}{r} 9 \text{ months} \\ -7 \text{ months} \\ \hline 2 \text{ months} \end{array}$$

The girls had 6 nickels and the
boys had 8 nickels. How many
nickels did the children have
together?

$$\begin{array}{r} 6 \text{ nickels} \\ +8 \text{ nickels} \\ \hline 14 \text{ nickels} \end{array}$$

The Brown family left on their
vacation. They drove 7 hours the
first day and 7 hours the second
day. How many hours did they
drive in the two days all together?

$$\begin{array}{r} 7 \text{ hours} \\ +7 \text{ hours} \\ \hline 14 \text{ hours} \end{array}$$

TOTAL POINTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
C	07	3	4

56

Solve these problems.

For the birthday party, mother
bought 13 quarts of ice cream.
The children ate 9 quarts. How
many quarts of ice cream are
left?

$$\begin{array}{r} 13 \text{ qts.} \\ -\ 9 \text{ qts.} \\ \hline 4 \text{ qts.} \end{array}$$

Dick had a board 12 inches long.
He sawed off 8 inches. How long
is the board now?

$$\begin{array}{r} 12 \text{ inches} \\ -\ 8 \text{ inches} \\ \hline 4 \text{ inches} \end{array}$$

Sue bought a cupcake for 9¢ and
an apple for 5¢. How much money
did she spend all together?

$$\begin{array}{r} 9¢ \\ +\ 5¢ \\ \hline 14¢ \end{array}$$

TOTAL POINTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
C	07	3	5

Solve these problems.

Work Space

Joe had 3 yards of rope. Sam had
6 yards. How many yards of rope
do the boys have together?

3 yards
+ 6 yards
———
9 yards

Mary had 14 dimes. She gave 9
of them to Alice. How many
dimes did Mary have then?

14 dimes
− 9 dimes
———
5 dimes

Mary needs 12¢ to buy a card.
She has 5¢. How many more
cents does Mary need?

12 ¢
− 5 ¢
———
7 ¢

TOTAL POINTS	NUMBER CORRECT
?	

LEVEL	UNIT	SKILL	PAGE
C	07	3	6

Solve these problems.

Work Space

Sally had 12 minutes to do her
work. She was finished in 5 minutes.
How many more minutes could
she have worked?

$$\begin{array}{r} 12 \text{ minutes} \\ - \ 5 \text{ minutes} \\ \hline 7 \text{ minutes} \end{array}$$

Mr. Jones bought 17 dozen peaches.
He sold 8 dozen in his store. How
many more dozen does he still
have to sell?

$$\begin{array}{r} 17 \text{ doz} \\ - \ 8 \text{ doz.} \\ \hline 9 \text{ doz.} \end{array}$$

Karen has 18 pennies. Tom had
9 pennies. How many more
pennies than Tom does Karen
have?

$$\begin{array}{r} 18 \text{ pennies} \\ - \ 9 \text{ pennies} \\ \hline 9 \text{ pennies} \end{array}$$

TOTAL POINTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
C	07	3	7

Solve these problems.

Work Space

Sally practiced the piano for 6
hours. Jan practiced for 4 hours.
How much longer did Sally
practice than Jane?

6 hrs.
−4 hrs
2 hrs

Dick had 14 pennies. He bought
a ball for 9 pennies. How many
pennies did he have left?

14 pennies
− 9 pennies
5 pennies

Mother had 16 feet of old material
The girls used seven feet for play
clothes. How much material was
left?

16 ft.
− 7 ft.
9 ft.

TOTAL POINTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
C	07	3	8

Solve these problems.

Work Space

Ann had a piece of ribbon 15 inches long. She only needed 8 inches. How much ribbon was left?

$$\begin{array}{r} 15 \text{ inches} \\ -8 \text{ inches} \\ \hline 7 \text{ inches} \end{array}$$

Jim had 9 pints of milk. He bought 9 more pints. How many pints of milk does he have?

$$\begin{array}{r} 9 \text{ pints} \\ +9 \text{ pints} \\ \hline 18 \text{ pints} \end{array}$$

Betsy went to the store to buy some ribbon and paper to wrap her Mother's Day gift. The ribbon cost 9 cents, and the paper cost 8 cents. How much did she spend?

$$\begin{array}{r} 9¢ \\ +8¢ \\ \hline 17¢ \end{array}$$

For extra practice, do Pages 11 and 12.

TOTAL POINTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
C	07	3	9

CET I

Solve these word problems.

Jan had 16 pennies. She spent 9 on some candy. How many pennies did she have left?

_____ pennies

CIRCLE CORRECT BOX	TL PTS	
	3	100%
	NO. OF PTS.	%
	2	67
	1	33

Mary bought 3 candy bars at the store. Jane bought 7 candy bars. How many candy bars did they buy altogether?

_____ candy bars

Betty had 14 gum balls. She gave 8 to her little brother. How many did she have left?

_____ gum balls

Put > or < in the circle to make a true number sentence.

CIRCLE CORRECT BOX	TL. PTS.	
	3	100%
	NO. OF PTS.	%
	2	67
	1	33

6 hours + 8 hours ◯ 18 hours − 6 hours
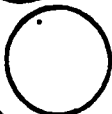
5 pennies − 3 pennies ◯ 5 pennies + 3 pennies

7 days + 4 days ◯ 6 days + 6 days

LEVEL	UNIT	SKILL	PAGE
C	07	3	10

Solve these problems.

Work Space

It took Dick 13 days to build a
tree house. Fred helped him for
5 days. How many days did he
work by himself?

13 days
- 5 days
8 days

One baby is 9 months old. Another
baby is 4 months old. How old
are both the babies together?

9 months
+ 4 months
13 months

Dick is 17 years old. His brother
is 8 years old. How much older is
Dick than his brother?

17 years
- 8 years
9 years older

TOTAL POINTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
C	07	3	11

Solve these problems.

Work Space

Room 5 had 18 pints of milk. 9
children didn't want their milk.
How many pints of milk were left?

18 pints
- 9 pints
9 pints

Jane had saved 16 yards of string.
She lost 9 yards. How much does
she have left?

16 yds.
- 9 yds.
7 yds

Sally had 17 quarters. She bought
a doll for 6 quarters. How many
quarters does she have now?

17 quarters
- 6 quarters
11 quarters

TOTAL POINTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
C	07	3	12

CET II

Solve these problems.

1. Mary had 5¢. She and her brother bought a candy bar for 10¢. How much did her brother pay?

    _____¢

C I R C L E	TL. PTS.	
	3	100%
	NO. OF PTS.	%
	2	67
	1	33
C O R R E C T		
B O X		

2. Billy had 10 feet of track for his trains. His father gave him 6 feet more. How much track does he have now?

    _____feet

3. Ann has 5 storybooks. She has read 3 of them. How many books does she have left to read?

    _____ books

Put $>$ for $<$ in the circle to make a true number sentence.

7 days + 7 days ◯ 14 days − 4 days

12 circles − 4 circles ◯ 14 circles − 8 circles

3 eggs + 3 eggs ◯ 12 eggs − 4 eggs

C I R C L E	TL. PTS.	
	3	100%
	NO. OF PTS.	%
	2	67
	1	33
C O R R E C T		
B O X		

LEVEL	UNIT	SKILL	PAGE
C	.07	3	13

LEVEL C, COMBINATION OF PROCESSES, SKILL 3

OBJECTIVE: Solves one-step word problems involving adding and subtracting values in money, time, and measurement from Level B. Sums to 18.

STANDARD TEACHING SEQUENCE

Page

Supplementary Material

1. Solves word problems.

2. Solves word problems.

3. Solves word problems.

4. Solves word problems.

5. Solves word problems.

6. Solves word problems.

7. Solves word problems.

8. Solves word problems.

9. Solves word problems.   11, 12

10. CET I.

    CET II.   13

There is a prerecorded tape for this booklet.

Circle pages that are to be done.

Standard Teaching Sequence, Con't

1967 - 68

Sequence No.   Prescription No.

14R   Studies 4 rules for solving word
                                      problems.

Textbook Resources:

Book	Teaching Pages	Practice Pages
Harcourt, Brace & World, 1965 Two By Two (Grade 2)		30, 31, 34, 47, 114 - 116
Harcourt, Brace & World, 1966 Elementary Mathematics (GR. 3)	12	13

SCHOOL CODE

NAME _____

NUMBER _____ CLASS _____

MATHEMATICS

Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL C

COMBINATION OF PROCESSES (07)

SKILL 4

DEVELOPMENTAL EDITION

TO THE STUDENT

Write the correct sign $>$ or $<$ in the $\bigcirc$

Jane had 4 cents. Bobby had 6 cents. Who had more money?

6 cents $\bigcirc$ 4 cents.

Answer

| 6 cents $>$ 4 cents |

Write the sums in each box. Then fill in the blanks and write the correct sign, < or >, in each circle. Look at the sentences you have made.

> < "less than"
> > "greater than"

15 ⟨<⟩ 8 + 8   8 + 8 = 16

The true sentence is 15 ⟨<⟩ 16 .

9 ⟨<⟩ 6 + 7   6 + 7 = 13

The true sentence is 9 ⟨<⟩ 13 .

12 ⟨>⟩ 3 + 4   3 + 4 = 7

The true sentence is 12 ⟨>⟩ 7 .

9 ⟨<⟩ 6 + 5   6 + 5 = 11

The true sentence is 9 ⟨<⟩ 11 .

For extra practice, do Page 13.

TOTAL POINTS	NUMBER CORRECT		LEVEL	UNIT	SKILL	PAGE
16			C	07	4	1

Write $<$ or $>$ in each circle to make a true sentence.

$$7 - 2 = 5$$

$$5 + 1 = 6$$

$$7 - 2 \; \textcircled{$<$} \; 5 + 1$$

$$15 - 8 = 7 \qquad\qquad 9 + 4 = 13$$

$$6 + 3 = 9 \qquad\qquad 6 + 8 = 14$$

$$15 - 8 \; \textcircled{$<$} \; 6 + 3 \qquad\qquad 9 + 4 \; \bigcirc \; 6 + 8$$

$$9 - 2 \; \bigcirc \; 3 + 2 \qquad\qquad 5 + 3 \; \bigcirc \; 8 + 1$$

$$3 + 7 \; \bigcirc \; 8 + 4 \qquad\qquad 6 + 7 \; \bigcirc \; 9 + 3$$

$$7 + 2 \; \bigcirc \; 4 + 6 \qquad\qquad 5 + 2 \; \bigcirc \; 10 - 2$$

For extra practice, do Page 14.

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
C	07	4	2

Write $<$ or $>$ in each circle to make true sentences. Draw lines between sentences which say the same thing.

6 $(<)$ 4 + 7 ⟍   ⟋ 7 $(>)$ 4

7 $(>)$ 5 − 1 ⟋   ⟍ 6 $(<)$ 11

---

6 + 7 $(>)$ 3 + 7   12 $(>)$ 6

12 − 2 $(<)$ 14 − 1   13 $(>)$ 10

7 + 5 $(>)$ 9 − 3   10 $(<)$ 13

For extra practice, do Page 15.

TOTAL POINTS	NUMBER CORRECT		LEVEL	UNIT	SKILL	PAGE
15			C	07	4	3

72

Write $<$ or $>$ in each circle to make true sentences.

12 pennies $\left(>\right)$ 4 pennies + 3 pennies.

11 inches $\left(<\right)$ 6 inches + 6 inches.

9 feet $\left(>\right)$ 3 feet + 5 feet.

2 minutes + 6 minutes $\left(<\right)$ 14 minutes.

5 hours + 2 hours $\left(<\right)$ 10 hours.

4 weeks − 3 weeks $\left(<\right)$ 2 weeks.

7 days − 4 days $\left(<\right)$ 6 days.

For extra practice, do Page 16.

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
C	07	4	4

Look at the number line.

Write = or ≠ in each circle.
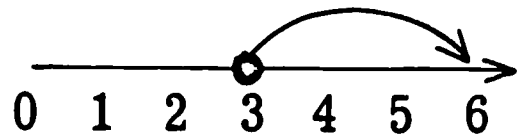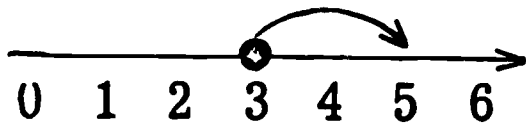
> = "equal"
>
> ≠ "not equal"

3 + 2 (=) 5   3 + 3. (≠) 5
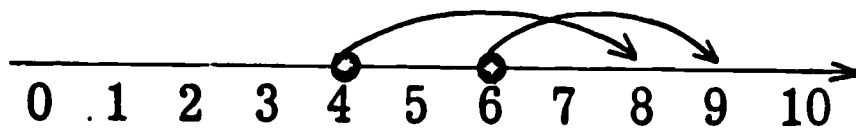
4 + 4 (≠) 6 + 3
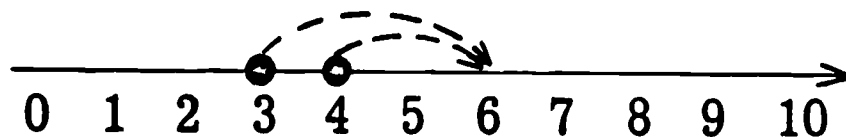
3 + 3 (=) 4 + 2

For extra practice, do Page 17.

TOTAL POINTS	NUMBER CORRECT
4	

LEVEL	UNIT	SKILL	PAGE
C	07	4	5

74

Write = or ≠ in each circle to make true sentences.

> = "equal"
>
> ≠ " not equal"

5 ⊜ 4 + 1   3 + 2 ⊘ 5 − 1

6 + 2 ⊘ 5 + 4   7 + 1 ⊜ 4 + 4

9 − 5 ⊜ 3 + 1   5 + 2 ⊜ 4 + 3

4 + 7 ⊜ 6 + 5   6 + 1 ⊘ 7 − 3

8 − 4 ⊘ 9 − 3   9 + 3 ⊘ 2 + 8

7 + 6 ⊜ 10 + 3   3 + 6 ⊜ 10 − 1

For extra practice, do Page 18 .

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
C	07	4	6

Write = or ≠ in each circle to make true sentences.

Start

9 + 7

12 ● ≠ ● 3 + 10

=

10 − 4 ● ≠ ● 6 + 6

=

6 + 2 ● ≠ ● 12 − 6

=

10 − 1 ● ≠ ● 8

=

● 4 + 5

Finish
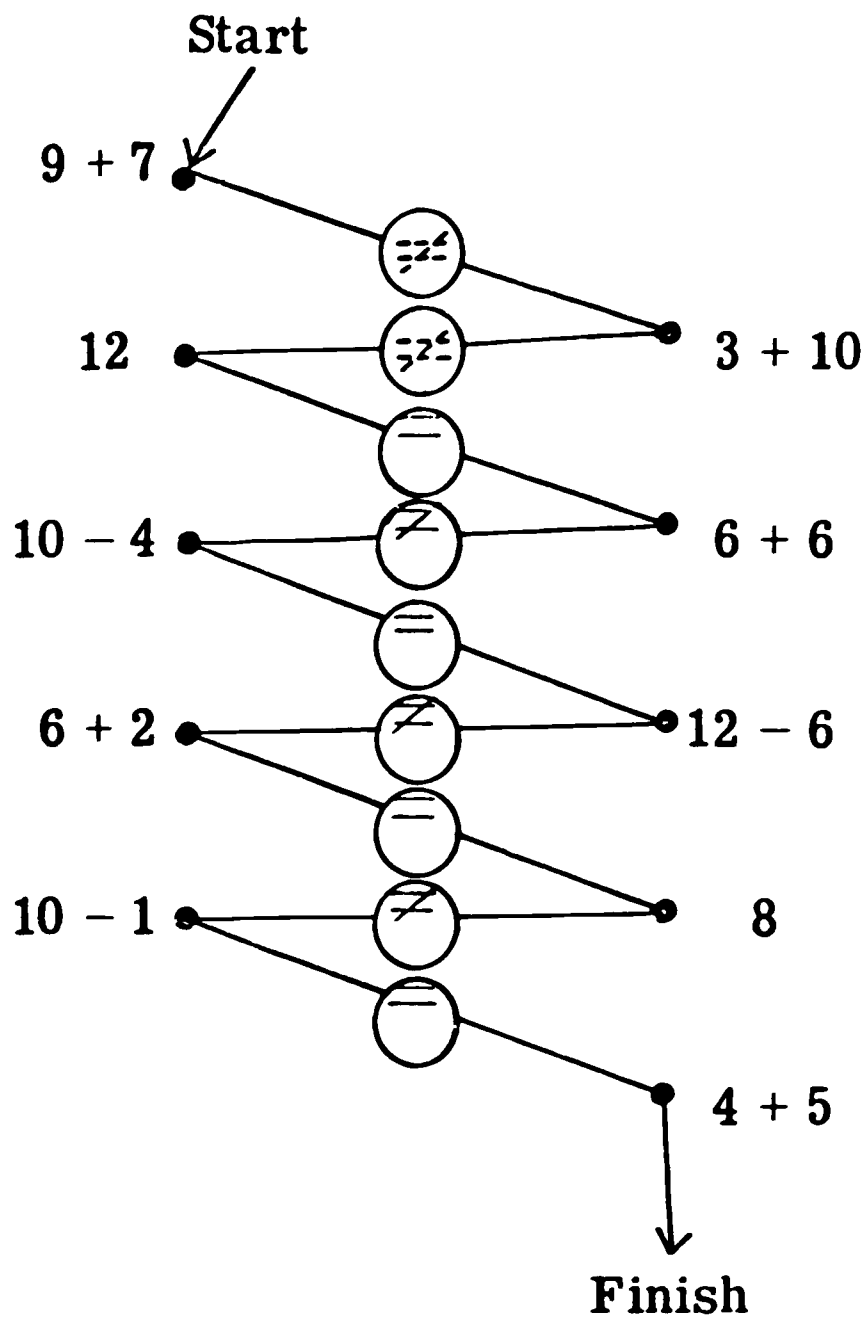
TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
C	07	4	7

Write = or ≠ in each circle to make true sentences.

$$= \text{ or } \neq$$

(12 − 1) pennies ⊜ 11 pennies

(4 − 1) days ⊜ (2 + 1) days

(6 + 3) inches ⊜ (4 + 5) inches

(4 + 4) hours ⊜ (10 − 3) hours

9 + 9 ⊜ 10 + 8

8 + 3 ⊜ 9 + 3

(13 − 4) feet ⊜ (6 + 4) feet

TOTAL POINTS	NUMBER CORREC:
7	

LEVEL	UNIT	SKILL	PA·E
C	07	4	8

Write <, >, or = in each circle to make true sentences.

$6 + 3$ (>>) $9 - 1$

$8 + 2$ (===) 10

$4 + 3$ (=) $10 - 3$

14 (<) $7 + 9$

$10 + 5$ (>) 11

$4 + 2$ (<) $6 + 4$

$8 + 1$ (>) $10 - 2$

$6 + 3$ (=) $10 - 1$
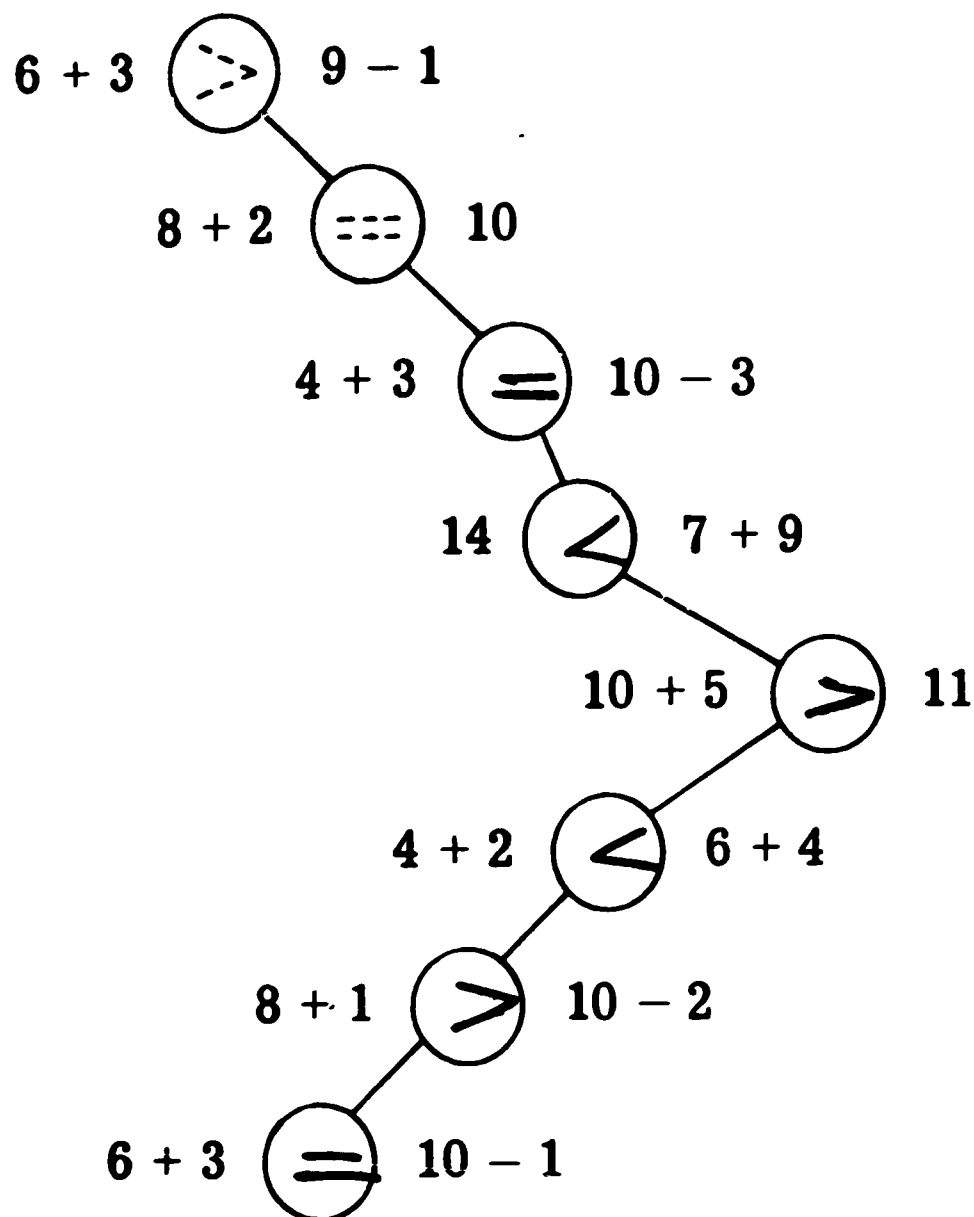
For extra practice, do Page 20.

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
C	07	4	9

Write $<$, $>$, or $=$ in each circle to make true sentences.

13 − 3 $\left(\text{===}\right)$ 10

4 + 9 $\left(<\right)$ 7 + 9

7 + 6 $\left(<\right)$ 7 + 8

8 + 5 $\left(=\right)$ 5 + 8

4 + 3 $\left(=\right)$ 12 − 5

9 + 6 $\left(>\right)$ 4 + 10

3 + 3 $\left(=\right)$ 12 − 6

9 + 9 $\left(>\right)$ 12 + 2

For extra practice, do Page 21.

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
C	07	4	10

79

Write <, >, or = in each circle to make true sentences.

3 days + 2 days $\left(\cdots\right)$ 5 days.

6 + 3 $\left(=\right)$ 10 − 1.

5 miles − 2 miles $\left(<\right)$ 9 miles.

(12 − 2) inches $\left(=\right)$ 10 inches.

6 weeks $\left(>\right)$ (5 − 1) weeks.

16 hours $\left(>\right)$ (9 + 1) hours.

3 + 3 $\left(=\right)$ 6.

9 feet $\left(=\right)$ (6 + 3) feet.

10 − 3 $\left(<\right)$ 6 + 2.

For extra practice, do Page 22.

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
C	07	4	11

-80

CET I

Put = or ≠ in the circle.

4 pigs + 7 pigs ( ) 17 pigs − 7 pigs.

8 dogs − 4 dogs ( ) 12 dogs − 8 dogs.

3 cats + 12 cats ( ) 8 cats + 7 cats.

4 bears + 10 bears ( ) 6 bears + 9 bears.

Put > or < in the circle.

17 roses − 13 roses ( ) 17 roses − 14 roses.

8 cups + 6 cups ( ) 9 cups + 3 cups.

7 homes − 6 homes ( ) 12 homes − 10 homes.

13 pens + 4 pens ( ) 15 pens + 1 pen.

Put + or − in each circle.

8 ( ) 4 = 4   14 ( ) 4 = 10

7 ( ) 4 = 11   13 ( ) 3 = 16

LEVEL	UNIT		PAGE
C	07	4	12

Look at the number lines. Write the sums in the boxes.

Then write < or > in each circle to make true sentences.
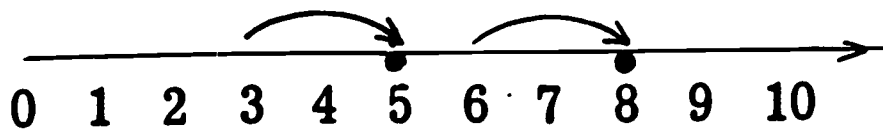
$3 + 2 = \boxed{5}$ $6 + 2 = \boxed{8}$

$3 + 2 \enspace \textcircled{<} \enspace 6 + 2$
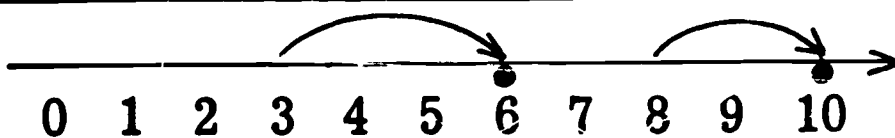
$3 + 3 = \boxed{6}$ $8 + 2 = \boxed{10}$

$3 + 3 \enspace \textcircled{<} \enspace 8 + 2$
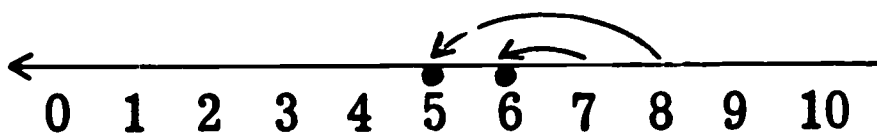
$7 - 1 \enspace \boxed{6}$ $8 - 3 = \boxed{5}$

$7 - 1 \enspace \textcircled{>} \enspace 8 - 3$

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
C	07	4	13

Look at the number line. Write $<$ or $>$ in each circle to make true sentences.

$$0 \quad 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9 \quad 10 \quad 11 \quad 12 \quad 13 \quad 14$$
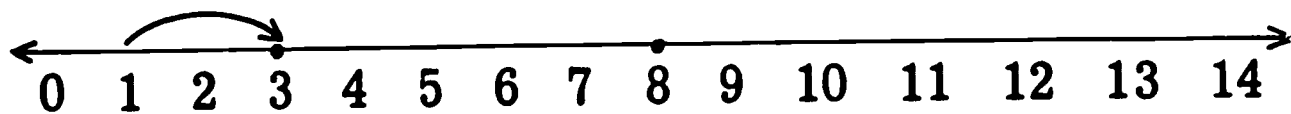
1 $<$ 7

5 $<$ 7

$1 + 2$ $<$ 7

$4 - 1$ $<$ 7

$8 - 2$ $<$ 7

10 $>$ 7

13 $>$ 7

$6 + 8$ $>$ 7

$14 - 6$ $>$ 7

$10 - 1$ $>$ 7

TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
C	07	4	1

Look at the number line. Write $<$ or $>$ in each circle to make true sentences. Check your answer by finding the sums.
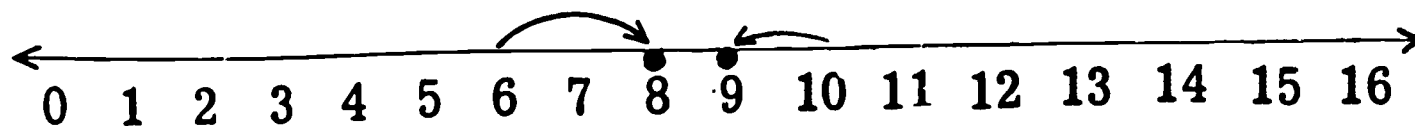
Write the sums.

$$10 - 1 = \underline{9}$$

$$10 - 1 \enspace \fbox{>} \enspace 6 + 2 \qquad\qquad 6 + 2 = \underline{8}$$

$$16 - 7 = \underline{9}$$

$$16 - 7 \enspace \fbox{<} \enspace 8 + 2 \qquad\qquad 8 + 2 = \underline{10}$$

$$8 + 2 = \underline{10}$$

$$8 + 2 \enspace \fbox{>} \enspace 5 - 3 \qquad\qquad 5 - 3 = \underline{2}$$

$$6 + 4 = \underline{10}$$

$$6 + 4 \enspace \fbox{>} \enspace 6 - 4 \qquad\qquad 6 - 4 = \underline{2}$$

$$0 + 9 = \underline{9}$$

$$0 + 9 \enspace \fbox{<} \enspace 7 + 3 \qquad\qquad 7 + 3 = \underline{10}$$

$$5 + 3 = \underline{8}$$

$$5 + 3 \enspace \fbox{>} \enspace 4 + 2 \qquad\qquad 4 + 2 = \underline{6}$$

TOTAL POINTS	NUMBER CORRECT
18	

LEVEL	UNIT	SKILL	PAGE
C	07	4	15

84

Write < or > in each circle to make true sentences.

12 (>) 6 + 3   12 pennies (>) 6 pennies + 3 pennies.

7 (<) 4 + 6   7 inches (<) 4 inches + 6 inches.

8 − 2 (<) 9   8 feet − 2 feet (<) 9 _feet_ .

9 (>) 5 + 2   9 days (>) 5 days + 2 days.

5 (>) 6 − 2   5 hours (>) 6 hours − 2 hours.

12 days (<) 13 days.

8 days (>) 7 days.

9 days + 2 days (<) 14 days.

TOTAL POINTS	NUMBER CORRECT
13	

LEVEL	UNIT	SKILL	PAGE
C	07	4	16

Look at the number lines.

Write = or ≠ in each circle.

| = equal |
| ≠ not equal |

0 1 2 3 4 5 6 7 8 9 10

$2 + 2 \; (\neq) \; 8$ $3 + 3 \; (=) \; 6$

0 1 2 3 4 5 6 7 8 9 10

$1 + 3 \; (\neq) \; 6$ $4 + 5 \; (=) \; 9$

0 1 2 3 4 5 6 7 8 9 10

$2 + 3 \; (=) \; 5$ $4 + 6 \; (\neq) \; 9$

0 1 2 3 4 5 6 7 8 9 10

$1 + 6 \; (\neq) \; 8$ $4 + 4 \; (\neq) \; 9$

0 1 2 3 4 5 6 7 8 9 10

$2 + 1 \; (\neq) \; 4$ $4 + 3 \; (=) \; 7$
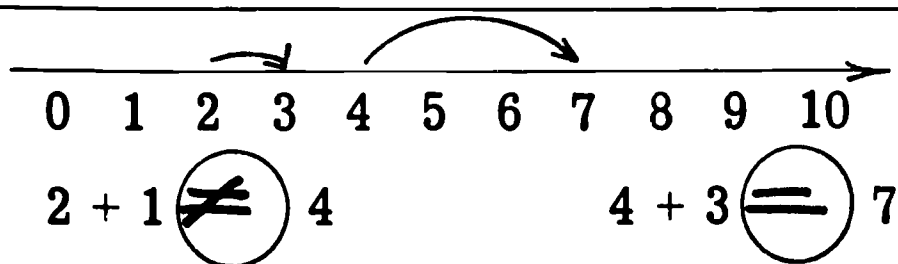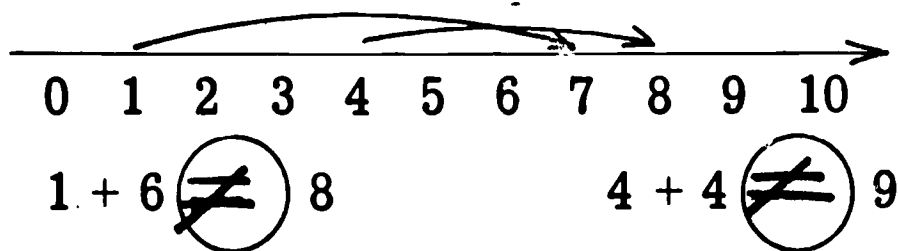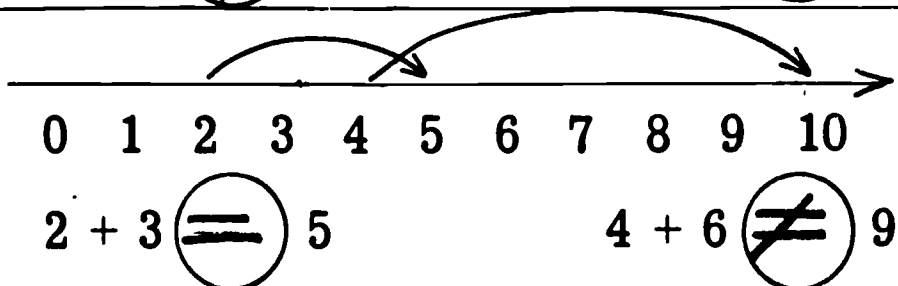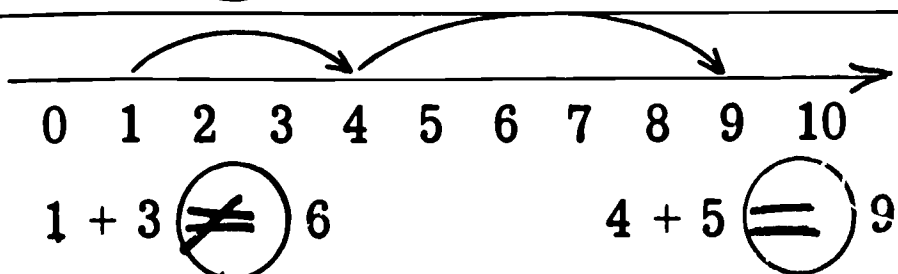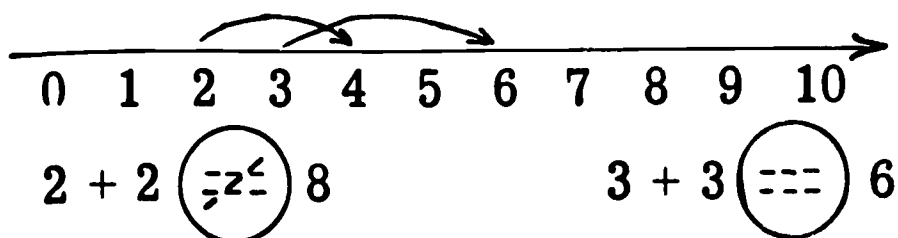
TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
C	07	4	17

Write the sums in the boxes. Write = or ≠ in the circles to make true number sentences.

$8 + 1 = \boxed{9}$ $\bigcirc$ 9 $\qquad$ $11 - 2 = \boxed{9}$ $(\neq)$ 10

$4 + 3 = \boxed{7}$ $(\neq)$ 5 $\qquad$ $3 + 5 = \boxed{8}$ $(=)$ 8

$4 + 5 = \boxed{9}$ $\qquad$ $6 + 2 = \boxed{8}$

$4 + 5$ $(\neq)$ $6 + 2$

$7 + 1 = \boxed{8}$ $\qquad$ $4 + 4 = \boxed{8}$

$7 + 1$ $(=)$ $4 + 4$

$3 + 3 = \boxed{6}$ $\qquad$ $6 + 6 = \boxed{12}$

$3 + 3$ $(\neq)$ $6 + 6$

TOTAL POINTS	NUMBER CORRECT
17	

LEVEL	UNIT	SKILL	PAGE
C	07	4	18

87

Write = or ≠ in each circle to make true sentences.

12 (=) 6 + 6   12 days (=) 6 days + 6 days.

7 (≠) 3 + 2   7 feet (≠) 3 feet + 2 feet.

8 − 2 (=) 6   8 inches − 2 inches (=) 6 inches.

8 + 1 (≠) 6 + 1   (8 + 1) hours (≠) (6 + 1) hours.

5 (=) 9 − 4   5 dimes (=) (9 − 4) dimes.

5 + 3 (=) 4 + 4

6 hours (≠) (3 + 4) hours.

2 days (=) (8 − 6) days.

6 + 2 (=) 8

Write $<$, $>$, or $=$ to make true sentences and fill in the blanks.

> $<$ "less than"
>
> $>$ "greater than"
>
> $=$ "equal"

$4 \; (\!<\!) \; 5 + 1$

$4 \; (\!<\!) \; \underline{6}$
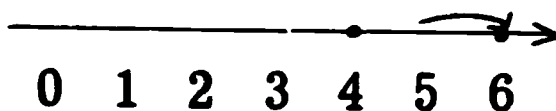
$4 + 2 \; (\!>\!) \; 1 + 3$

$\underline{6} \; (\!>\!) \; \underline{4}$
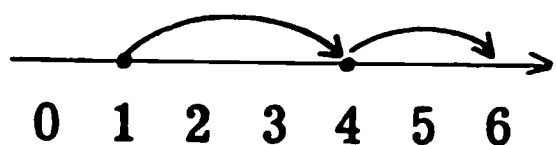
$4 + 1 \; (\!=\!) \; 3 + 2$

$\underline{5} \; (\!=\!) \; \underline{5}$

$6 + 3 \; (\!>\!) \; 8$

$\underline{9} \; (\!>\!) \; 8$

$(5 + 2)$ feet $(\!=\!)$ 7 feet.

$\underline{7}$ feet $(\!=\!)$ 7 feet.

TOTAL POINTS	NUMBER CORRECT
17	

LEVEL	UNIT	SKILL	PAGE
C	07	4	20

Write $<$, $>$, or $=$ to make true sentence.

> $<$ "less than"
>
> $>$ "greater than"
>
> $=$ "equal"

6 $\left(\text{===}\right)$ 5 + 1

2 + 3 $\left(<\right)$ 7 − 1

8 + 2 $\left(>\right)$ 4 + 5

3 + 3 $\left(<\right)$ 4 + 4

10 − 5 $\left(=\right)$ 9 − 4

6 + 6 $\left(<\right)$ 13
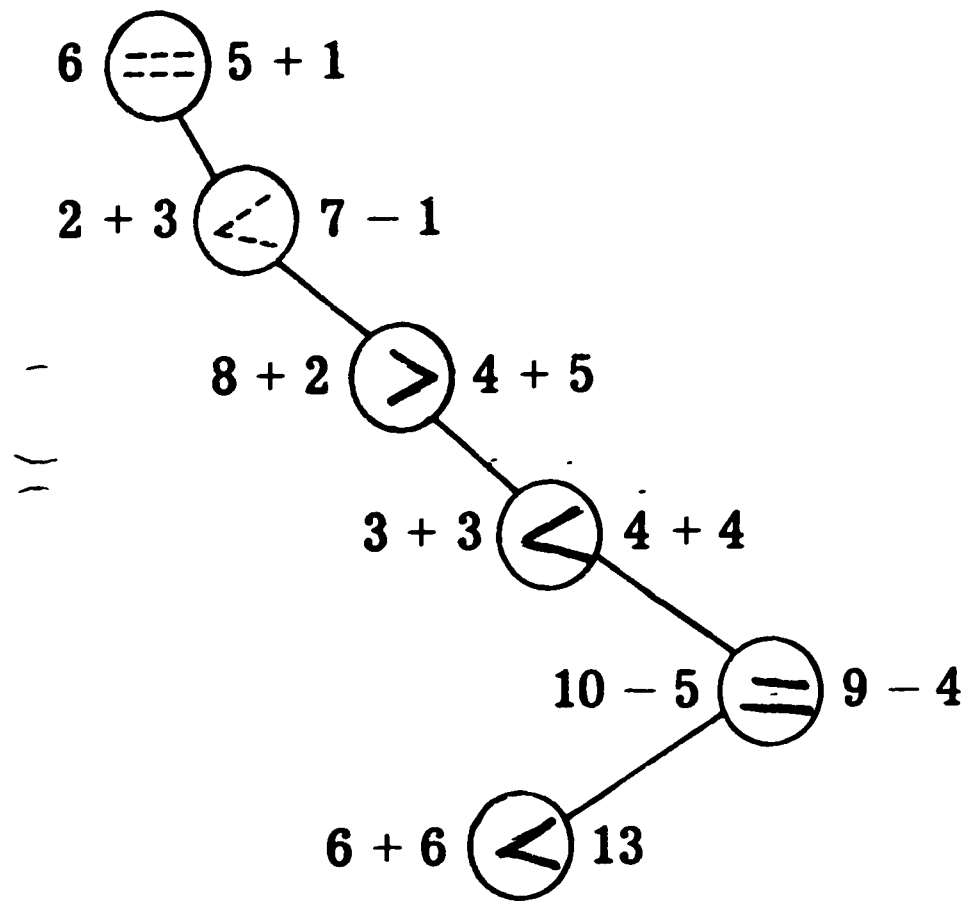
TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNI	SKILL	PAGE
C	07	4	21

Write $<$, $>$ or $=$ in each circle to make true sentences.

> $<$ "less than"
>
> $>$ "greater than"
>
> $=$ "equal"

7 hours $=$ 6 hours + 1 hour.

(5 + 2) days $>$ 4 days.

7 + 2 $<$ 10.

(3 + 2) inches $<$ (4 + 3) inches.

(4 + 5) hours $=$ (6 + 3) hours.

4 − 1 $=$ 9 − 6.

5 + 5 $=$ 10.

6 + 3 $>$ 4 + 4.

3 dimes $>$ (7 − 5) dimes.

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
C	07	4	22

CET II

Put = or ≠ in the circle.

7 inches + 4 inches $\bigcirc$ 15 inches − 4 inches.

18 hours − 12 hours $\bigcirc$ 2 hours + 3 hours.

3 bananas − 2 bananas $\bigcirc$ 2 bananas + 0 bananas.

13¢ + 2¢ $\bigcirc$ 7¢ + 8¢

Put < , >, or = in the circle.

17 feet − 14 feet $\bigcirc$ 7 feet + 4 feet.

10 triangles + 8 triangles $\bigcirc$ 17 triangles − 0 triangles.

9 minutes − 3 minutes $\bigcirc$ 4 minutes + 2 minutes.

8¢ − 4¢ $\bigcirc$ 4¢ + 1¢

Put + or − in each circle to make a true number sentence.

7 $\bigcirc$ 3 = 4   17 $\bigcirc$ 14 = 3

15 $\bigcirc$ 3 = 18   7 $\bigcirc$ 4 = 11

LEVEL	UNIT	SKILL	PAGE
C	07	4	23

OBJECTIVE: Fills in >, <, =, ≠ for addition or subtraction expressions including units in money, time, and systems of measurement from Level B. Sums to 18. No conversion of units.

STANDARD TEACHING SEQUENCE

Page		Supplementary Material
1.	Writes sum and fills in < or > to make true sentences.	13
2.	Fills in > or < for addition and subtraction problems.	14
3.	Fills in > or < for addition and subtraction problems and matches statements which say the something.	1?
4.	Fills in > or < for statements using units of measurement, time, or money.	16
5.	Fills in = or ≠ using number line.	17
6.	Fills in = or ≠ for addition and subtraction problems.	18
7.	Fills in = or ≠ for addition and subtraction problems.	
8.	Fills in = or ≠ for statements using units of measurement, time, or money.	19
9.	Fills in >, <, or = for addition and subtraction problems.	20
10.	Fills in >, <, or = for addition and subtraction problems.	21
11.	Fills in >, <, or = for statements using units of measurement or time.	22
12.	CET I.	
	CET II.	23

Circle pages that are to be done.

Standard Teaching Sequence, Con't

1967 - 68

Textbook Resources:

Book	Teaching Pages	Practice Pages
Harcourt, Brace & World, 1965 One By One (Grade 1)		144, 153
Harcourt, Brace & World, 1965 Two By Two (Grade 2)		16, 110

D-COP-4

Standard Teaching Sequence, Con't.

1967 - 68

Textbook Resources:

Book	Teaching Pages	Practice Pages
Harcourt, Brace & World, 1965 Two by Two (Grade 2)		32, 48, 52, 104, 139
Harcourt, Brace & World, 1966 Elementary Mathematics - 3		139, 198, 233
Harcourt, Brace & World, 1966 Elementary Mathematics - 4		14, 263
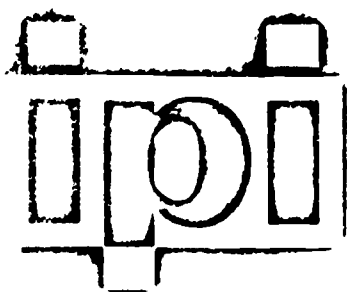
IPI

Example Material

Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL **C**

COMBINATION OF PROCESSES (07)

SKILL **5**

DEVELOPMENTAL EDITION

TO THE STUDENT

You should be able to write = or ≠ in the circle to make a true sentence.

$$2 + 3 \bigcirc 5 + 0$$

Write + or − in the circle to make a true sentence.

$$6 \bigcirc 2 = 8$$

Add, using the number line.
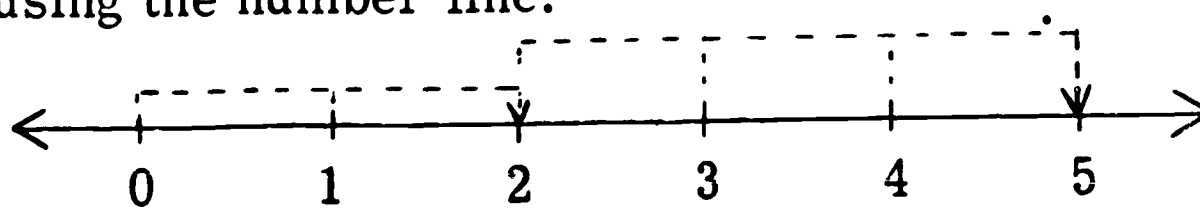
The number line shows that

$$2 + 3 = \underline{5}.$$
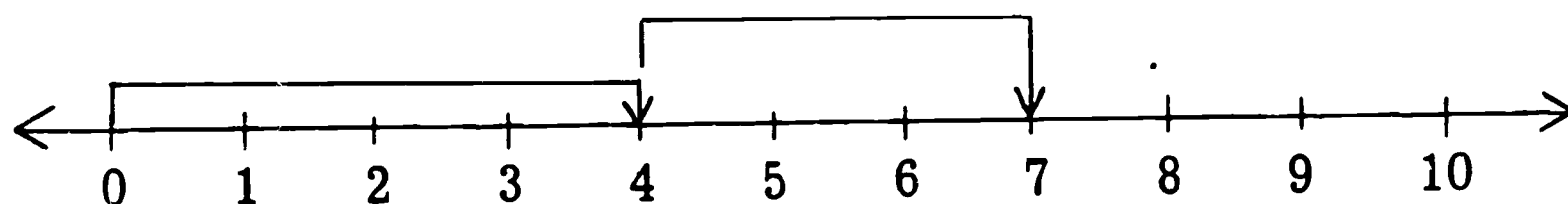
The number line shows that

$$4 + \underline{\textit{3}} = 7.$$
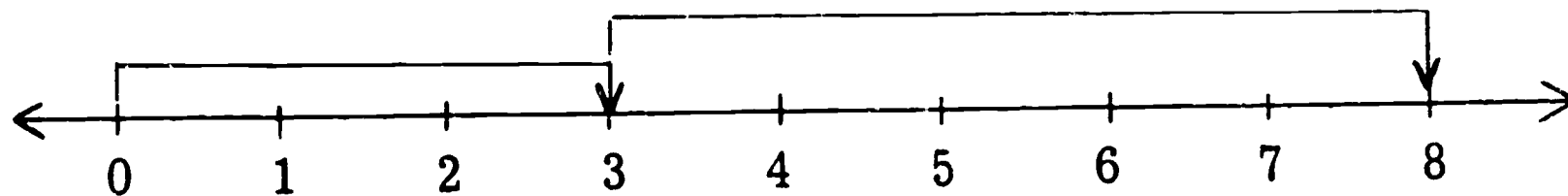
The number line shows that

$$\underline{\textit{3}} + \underline{\textit{5}} = \underline{}$$

For extra practice, do Page 12.

TOTAL POINTS	NUMBER CORRECT
5	

LEVEL	UNIT	SKILL	PAGE
C	07	5	1

Subtract using the number line.
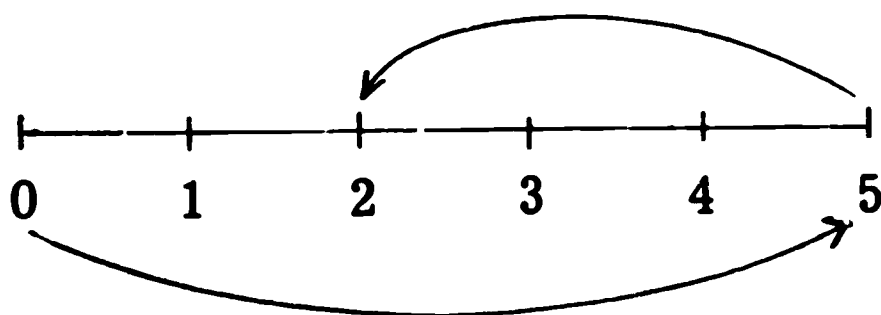
The number line shows that

$$5 - 3 = \underline{2}.$$
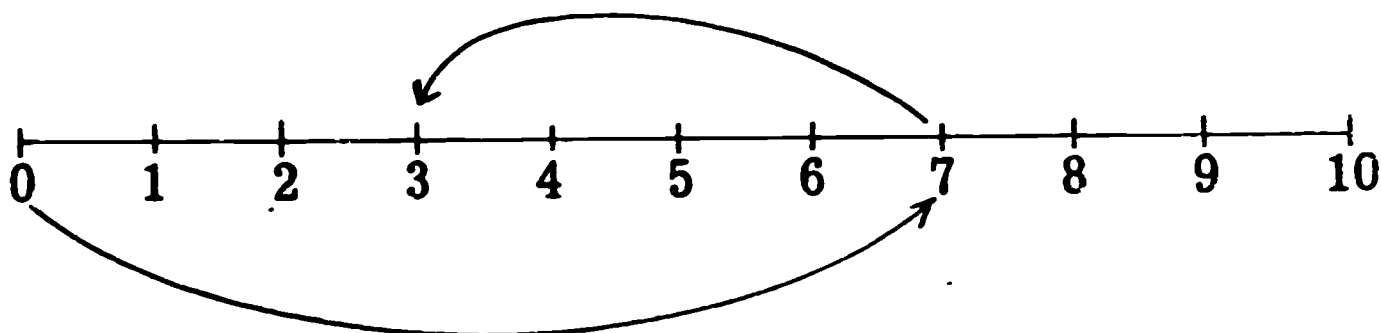
The number line shows that

$$7 - \underline{4} = 3.$$
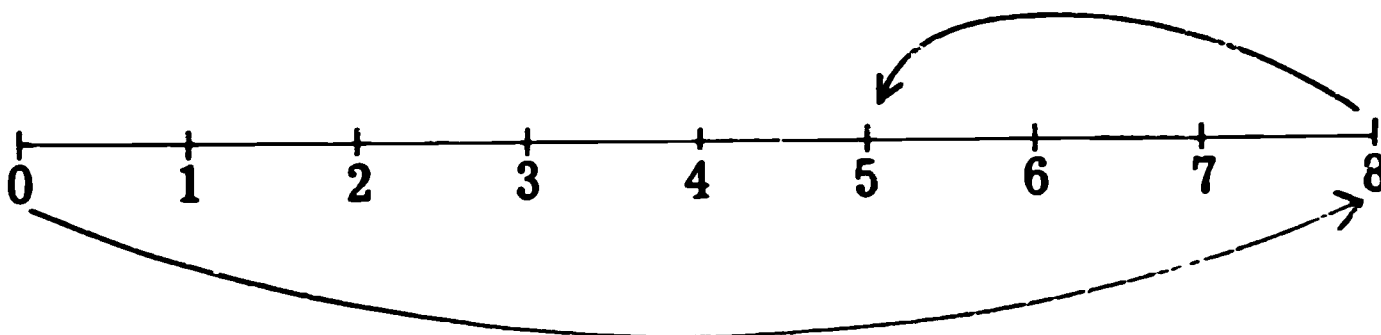
The number line shows that

$$\underline{8} - \underline{3} = \underline{5}$$

For extra practice, do Page 13.

TOTAL POINTS	NUMBER CORRECT
5	

LEVEL	UNIT	SKILL	PAGE
C	07	5	2

Write + or − in the circle to show the jumps on the number line.

$2 \left(+ \right) 1 = 3$
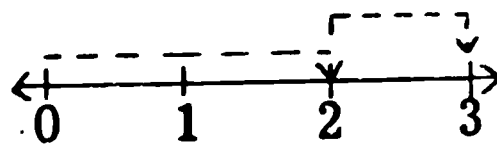
$2 \left(- \right) 1 = 1$
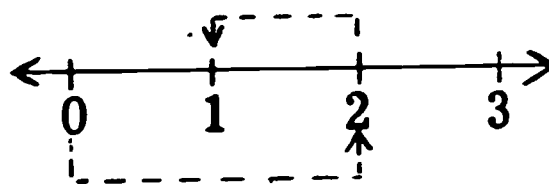
Write + or − in each circle to make true sentences.

$3 \left(+ \right) 1 = 4$ $3 \left(- \right) 1 = 2$

$1 \left(+ \right) 1 = 2$ $1 \left(- \right) 1 = 0$

$3 \left(+ \right) 2 = 5$ $3 \left(- \right) 2 = 1$

$4 \left(- \right) 2 = 2$ $4 \left(+ \right) 2 = 6$

For extra practice, do Page 14.

TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
C	07	5	3

100

Write + or − in each circle to make true sentences.

Look at the number line.
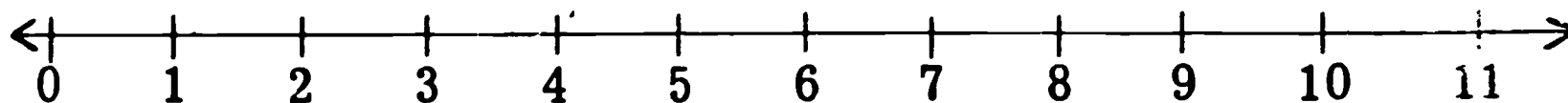
$4 \bigoplus 4 = 8$ $4 \bigodot 4 = 0$

$6 \bigodot 3 = 3$ $6 \bigoplus 3 = 9$

$8 \bigodot 7 = 1$ $2 \bigoplus 7 = 9$

$8 \bigodot 4 = 4$ $6 \bigoplus 5 = 11$

$2 \bigoplus 6 = 8$ $7 \bigodot 4 = 3$

$5 \bigoplus 4 = 9$ $8 \bigoplus 2 = 10$

$3 \bigodot 3 = 0$ $9 \bigodot 4 = 5$

For extra practice, do Page 15.

TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
C	07	5	4

Write + or − in each circle to make true sentences.

$4 \left(\!\frac{+}{\ }\!\right) 5 = 9$ $6 \left(+\right) 4 = 10$

$9 \left(+\right) 6 = 15$ $16 \left(-\right) 8 = 8$

$9 \left(+\right) 3 = 12$ $6 \left(+\right) 7 = 13$

$13 \left(-\right) 4 = 9$ $12 \left(-\right) 3 = 9$

$4 \left(+\right) 7 = 11$ $14 \left(-\right) 9 = 5$

$13 \left(-\right) 6 = 7$

$9 \left(+\right) 4 = 13$

$9 \left(+\right) 7 = 16$

TOTAL POINTS	NUMBER CORRECT		LEVEL	UNIT	SKILL	PAGE
13			C	07	5	5

Write + or − in the circle to make true sentences.

$16 = 9 \left(+\right) 7$ $14 = 8 \left(+\right) 6$

$12 = 7 \left(+\right) 5$ $13 = 10 \left(+\right) 3$

$14 \left(-\right) 8 = 6$ $8 = 10 \left(-\right) 2$

$7 \left(+\right) 5 = 12$ $10 = 13 \left(-\right) 3$

$10 \left(-\right) 3 = 7$ $9 = 8 \left(+\right) 1$

$8 \left(+\right) 4 = 12$

$14 \left(-\right) 6 = 8$

$10 = 6 \left(+\right) 4$

$10 \left(-\right) 3 = 7$

$12 = 6 \left(+\right) 6$

For extra practice, do Page 16.

TOTAL POINTS	NUMBER CORRECT
15	

LEVEL	UNIT	SKILL	PAGE
C	07	5	6

Write + or − to make true sentences.

$$18 \left(-\right) 9 = 9 \qquad 5 = 14 \left(-\right) 9$$

$$15 \left(-\right) 8 = 7 \qquad 14 \left(-\right) 7 = 7$$

$$10 \left(+\right) 5 = 15 \qquad 12 \left(-\right) 3 = 9$$

$$9 \left(+\right) 8 = 17 \qquad 9 \left(+\right) 6 = 15$$

$$18 = 12 \left(+\right) 6 \qquad 15 = 7 \left(+\right) 8$$

$$9 \left(+\right) 5 = 14 \qquad 12 \left(-\right) 6 = 6$$

For extra practice, do Page 17.

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
C	07	5	7

-104

Complete the number name for **5** by writing + or − in the circles. Write the sum or difference in the blanks.

$$6 - 1 = 3 \ominus 2$$
$$\underline{5} = \underline{5}$$

$$3 \ominus 2 \Big\} 5$$
$$6 - 1$$

Complete the number name for **7** by writing + or − in the circle. Fill in the blanks.

$$5 + 2 = 4 \oplus 3$$
$$\underline{7} = \underline{7}$$

$$4 \oplus 3 \Big\} 7$$
$$5 + 2$$

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
C	07	5	8

Write + or − in each circle to make true sentences and fill in the blanks.

$$3 \left(\!+\!\right) 2 = 5 - 0$$

$$\underline{5} = \underline{5}$$

$$4 + 9 = 7 \left(\!+\!\right) 6$$

$$\underline{13} = \underline{13}$$

$$8 \left(\!-\!\right) 4 = 6 - 2$$

$$\underline{4} = \underline{4}$$

$$8 \left(\!+\!\right) 1 = 4 + 5$$

$$\underline{9} = \underline{9}$$

$$5 + 5 = 13 \left(\!-\!\right) 3$$

$$\underline{10} = \underline{10}$$

TOTAL POINTS	NUMBER CORRECT
15	

LEVEL	UNIT	SKILL	PAGE
C	07	5	9

Write + or − in each circle and fill in the blanks.

$9 \left(-\right) 3 = 3 + 3$

__6__ = __6__

$6 \left(+\right) 1 = 3 + 4$

__7__ = __7__

$10 \left(-\right) 1 = 6 + 3$

__9__ = __9__

$9 \left(-\right) 6 = 2 + 1$

__3__ = __3__

$7 \left(+\right) 5 = 12 + 0$

__12__ = __12__

$9 + 7 = 17 \left(-\right) 1$

__16__ = __16__

$5 + 3 = 16 \left(-\right) 8$

__8__ = __8__

$5 \left(+\right) 2 = 12 - 5$

__7__ = __7__

TOTAL POINTS	NUMBER CORRECT
24	

LEVEL	UNIT	SKILL	P·
C	0'i	5	10

CET I

Put + or − in the circle.

$4 \bigcirc 6 = 10$

$13 \bigcirc 8 = 5$

$3 \bigcirc 6 = 9$

$8 \bigcirc 4 = 12$

$9 \bigcirc 0 = 9$

$7 \bigcirc 6 = 13$

$14 \bigcirc 6 = 8$

$12 \bigcirc 7 = 5$

$17 \bigcirc 8 = 9$

$6 \bigcirc 7 = 13$

C I R C L E	TL PTS	
	10	1
C O R R E C T	NO OF PTS.	
	9	90
	8	80
	7	70
	6	60
	5	5
	4	
	3	
B O X	2	20
	1	

Fill in the circle to make a true number sentence.

$6 + 7 = 16 - \bigcirc$

$14 - 6 = \bigcirc + 3$

$\bigcirc - 7 = 4 + 4$

$6 + \bigcirc = 8 + 7$

C I R C L E	TL PTS	
	4	100
C O R R E C T	NO OF PTS.	
	3	75
	2	5
	1	2.5
B O X		

Use number lines and fill in the circles to make true senten es.
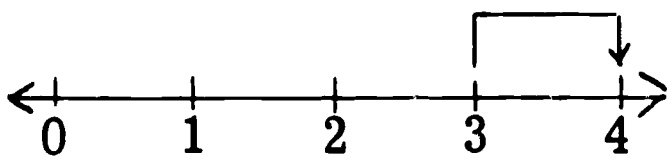
$3 \bigodot 1 = 4$
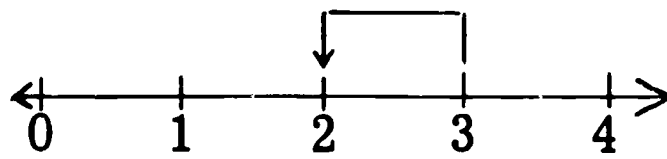
$3 \bigodot 1 = 2$
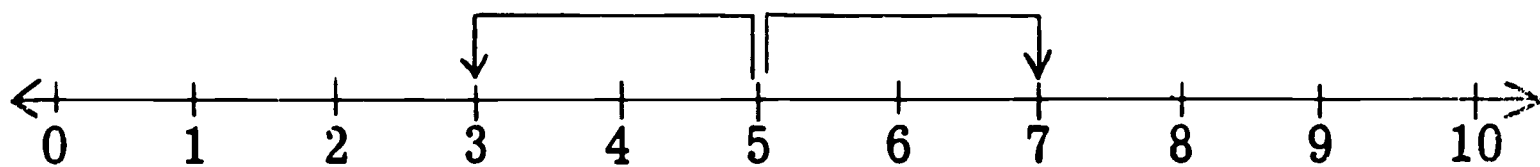
$5 \bigodot 2 = 3$

$5 \bigoplus 2 = 7$
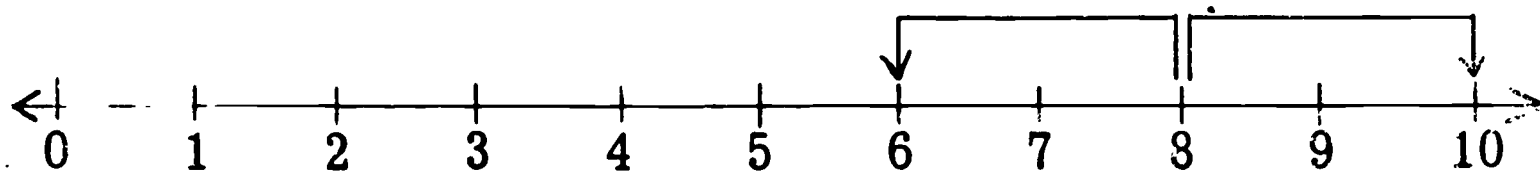
$8 \bigoplus 2 = 10$

$8 \bigodot 2 = 6$

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
C	07	5	

Write + or − in each circle to make true sentences.

Look at the number line.

$2 \bigoplus 2 = 4$
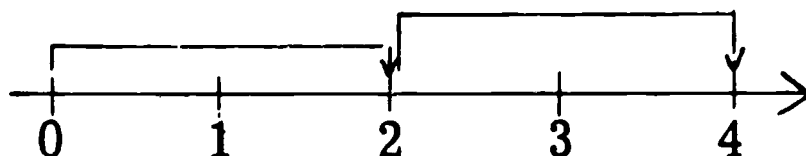
$1 \bigoplus 2 = 3$
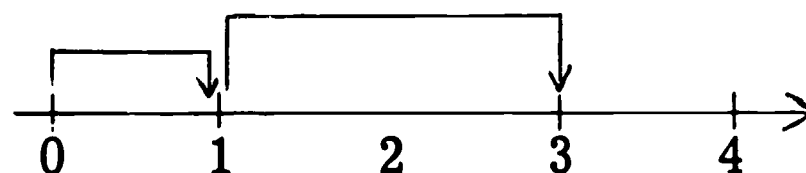
$4 \bigoplus 1 = 3$
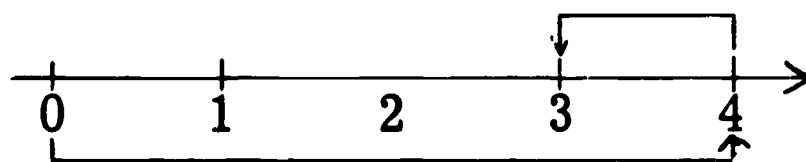
$4 \bigoplus 2 = 6$
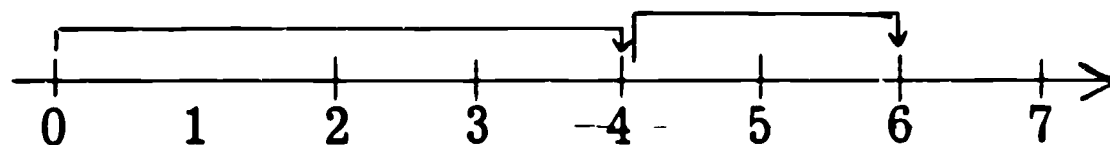
$5 \bigoplus 2 = 3$
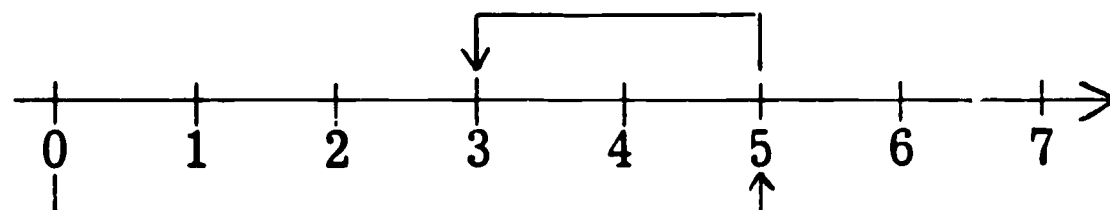
$7 \bigoplus 3 = 4$
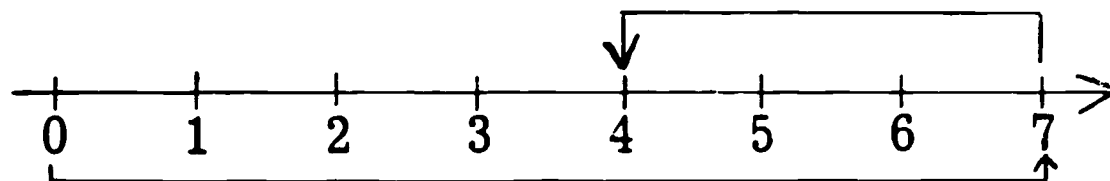
TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
C	07	5	13

Circle the correct sign in each of the number sentences below.

$^\cdot 9 \; + (-) 2 = 7$

$9 (+) 9 = 18$

$8 \; + (-) 2 = 6$

$7 \; + (-) 2 = 5$

$3 (+) - 2 = 5$

$9 (+) 7 = 16$

$4 (+) - 3 = 7$

$2 (+) 4 = 6$

$1 (+) - 2 = 3$

$6 (+) 6 = 12$

TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
C	07	5	14

Look at the pictures and write + or − in the circles to make true sentences.
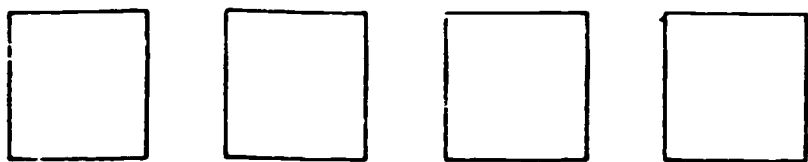
$7 \ominus 3 = 4$

$4 \oplus 3 = 7$

$7 \bigcirc 4 = 3$
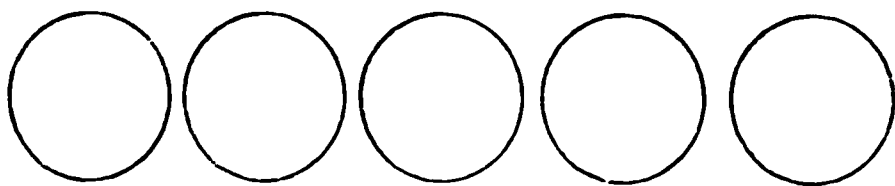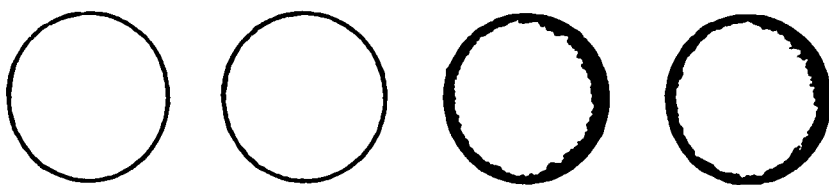
$9 \bigcirc 2 = 7$

$7 \oplus 2 = 9$

$9 \ominus 7 = 2$

$7 \oplus 3 = 10$

$10 \bigcirc 3 = 7$

$10 \ominus 7 = 3$

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
C	07	5	15

Write + or - in the circle to make a true number sentence.

$$5 \bigcirc 1 = 4$$

$$2 \bigcirc 2 = 4$$
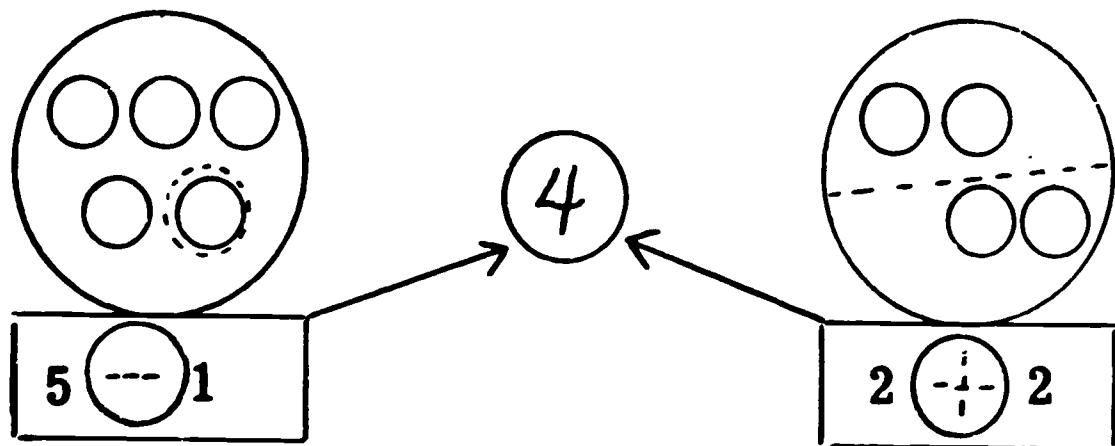
$$5 - 1 = 2 \bigcirc 2$$

In a true number sentence, each side of the = sign must be a name for the same number.

TOTAL POINTS	NUMBER CORRECT
5	

LEVEL	UNIT	SKILL	PAGE
C	07	5	16

Write + or − to make true sentences and fill in the blanks.

$$6 \left(-\!\!+\!\!-\right) 3 = 9 = 7 + 2$$

$$4 \left(+\right) 2 = 6 = 3 + 3$$

$$3 \left(-\right) 2 = 1 = \quad 0 + 1$$

$$5 \left(+\right) 2 = 7 = 8 - 1$$

$$7 \left(-\!\!+\!\!-\right) 1 = 8 + 0$$
$$\underline{\;\;\;\;\;\;} = \underline{\;\mathbf{8}\;}$$

$$6 \left(-\right) 2 = 2 + 2$$
$$\underline{\;4\;} = \underline{\;4\;}$$

CET II

Put + or − in the circle to make a true number sentence.

8 ◯ 3 = 11   13 ◯ 8 = 5

5 ◯ 13 = 18   15 ◯ 0 = 15

10 ◯ 6 = 4   4 ◯ 3 = 7

16 ◯ 13 = 3   3 ◯ 5 = 8

18 ◯ 11 = 7   17 ◯ 7 = 10

C I R C L E	TL PTS	
	10	100%
	NO. OF PTS.	%
	9	90
C O R R E C T	8	80
	7	70
	6	60
	5	50
	4	40
	3	30
	2	20
B O X	1	10

Fill in the circle to make a true number sentence.

18 − 9 = 4 + ◯

8 + 7 = ◯ + 6

◯ − 4 = 3 + 7

14 − ◯ = 4 + 4

C I R C L E	TL. PTS	
	4	100%
	NO. OF PTS.	%
	3	75
C O R R E C T	2	50
	1	25

LEVEL	UNIT	SKILL	PAGE
C	07	5	

115

Page 19

OBJECTIVE: Fills in + or – to complete an equation for addition and subtraction skills learned to this point.

STANDARD TEACHING SEQUENCE

Page	Supplementary Material
1. Adds using the number line.	12
2. Subtracts using the number line.	13
3. Writes + or – to complete equations.	14
4. Writes + or – to complete equations.	15
5. Writes + or – to complete equations.	
6. Writes + or – to complete equations.	16
7. Writes + or – to complete equations.	17
8. Writes + or – in addition and subtraction expressions to make them equivalent and fills in numerals.	
9. Writes + or – in addition and subtraction expressions to make them equivalent and fills in numerals.	
10. Writes + or – in addition and subtraction expressions to make them equivalent and fills in numerals.	
11. CET I.	
CET II.	18

Circle pages that are to be done.

D-COP-5

Standard Teaching Sequence, Con't.

1967 - 68

Textbook Resources:

Book	Teaching Pages	Practice Pages
Harcourt, Brace & World, 1965 One by One (Grade 1)		151
Harcourt, Brace & World, 1965 Two by Two (Grade 2)		101
Harcourt, Brace & World, 1966 Elementary Mathematics - 3		143

C-Cop-5

Standard Teaching Sequence, Con't

1967 - 68

Sequence No.   Prescription No.

19R   Makes correct number ser... ... by
                                       putting a plus or minus s.. .. the
                                       placeholder.

Textbook Resources:

Book	Teaching Pages	Pract.. - P.g.s
Harcourt, Brace & World, 1965 One By One (Grade 2)		153

SCHOOL CODE   NAME _____

NUMBER _____ CLASS _____

IPI

MATHEMATICS

Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL **C**

COMBINATION OF PROCESSES (07)

SKILL **6**

DEVELOPMENTAL EDITION

TO THE STUDENT

Write the missing numeral.

$$7 + 5 = \underline{\qquad} - 3$$

In this booklet, you will learn to do these kinds of problems.

Find the missing numeral.

$$6 + \underline{\quad ? \quad} = 9$$

To do this problem, look at the number line.
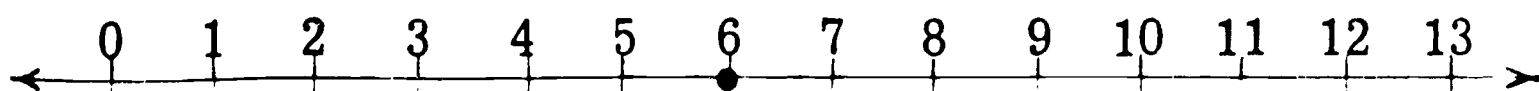
Here you are at 6.

How many more steps do you take to get to 9? __3__

Now fill in the numeral.

$$6 + \underline{\quad 3 \quad} = 9$$

$$3 + \underline{\quad 4 \quad} = 7$$
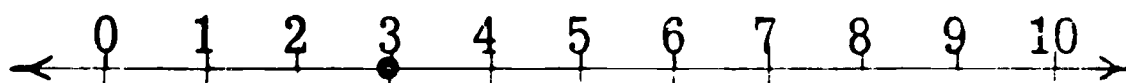
You are at 3. How many more steps are there until 7?

$$5 + \underline{\quad 3 \quad} = 8$$

$$4 + \underline{\quad 6 \quad} = 10$$

TOTAL POINTS	NUMBER CORRECT
5	

LEVEL	UNIT	SKI	PAGE
C	07	6	1

Fill in the missing numerals. Use this number line to help you.

< 0 1 + +--+--+ 5 --+--+--+ 10 +--+--+--+ 15 -->
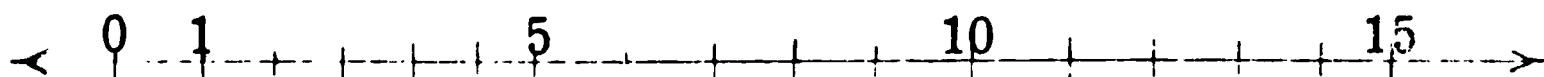
5 + __7__ = 12   2 + __6__ = 8

4 + __10__ = 14   7 + __7__ = 14

6 + __9__ = 15   8 + __5__ = 13

Here is a problem you have done.

5 + __7__ = 12

If it is turned around, can you still do it?

__7__ + 5 = 12   0 1 +--+--+--5--+--+--+--10--+--+--+--15

Here we are at 5. How many

steps is it to 12?

Use the number line to find the missing numeral.

__3__ + 2=5   __3__ + 3=6

__3__ + 4=7   __1__ + 6=7

For extra practice, do Page 13.

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
C	07	6	2

122

Try doing these problems without using the number line.

$4 +$ _1_ $= 5$ _4_ $+ 4 = 8$

$4 +$ _2_ $= 6$ _5_ $+ 4 = 9$

$4 +$ _3_ $= 7$ _6_ $+ 4 = 10$

$6 +$ _3_ $= 9$ _6_ $+ 6 = 12$

$6 +$ _4_ $= 10$ _7_ $+ 6 = 13$

$6 +$ _5_ $= 11$ _8_ $+ 6 = 14$

$5 +$ _5_ $= 10$ _8_ $+ 5 = 13$

$5 +$ _6_ $= 11$ _9_ $+ 5 = 14$

$5 +$ _7_ $= 12$ _10_ $+ 5 = 15$

TOTAL POINTS	NUMBER CORRECT
18	

LEVEL	UNIT		
C	07	6	3

123

Find the missing numerals.

$$9 - \underline{\quad ? \quad} = 6$$

< 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 >
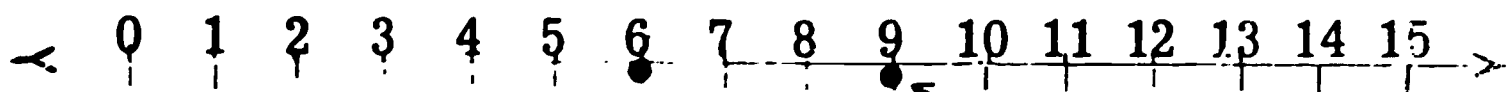
Here you are at 9.

How many steps backward

do you take to get to 6? _3_

Now fill in the numeral.

$$9 - \underline{\ 3\ } = 6$$

Remember that when you subtract you take backward steps on the number line.

$7 - \underline{3} = 4$
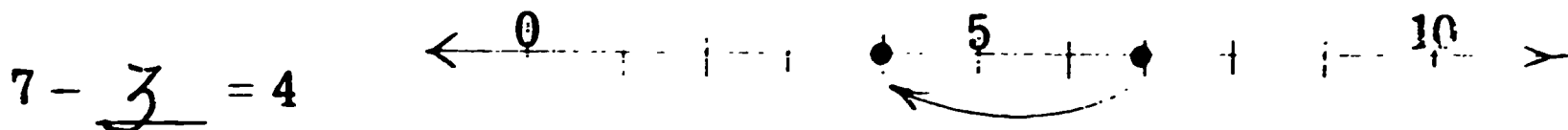
How many steps from 7 to 4?

$8 - \underline{2} = 6$

$9 - \underline{4} = 5$

$10 - \underline{7} = 3$
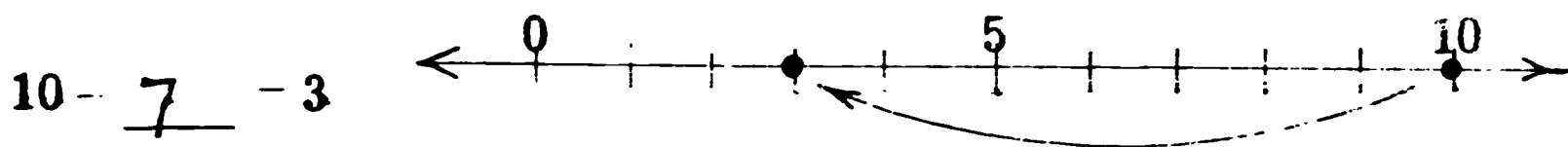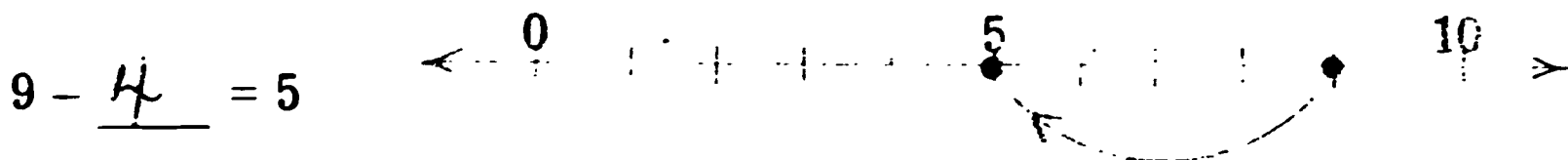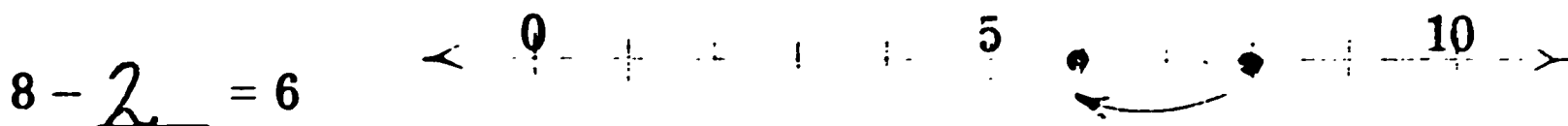
TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
C	07	6	4

Fill in the missing numerals. Use this number line to help you.
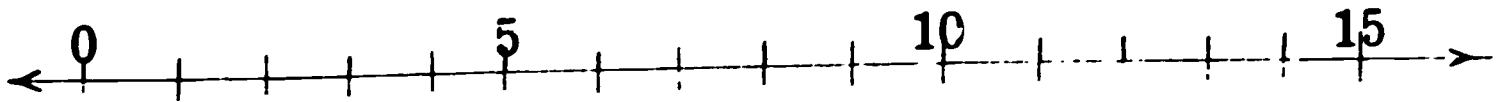
$10 - \underline{5} = 5$ $\qquad$ $13 - \underline{7} = 6$

$12 - \underline{2} = 10$ $\qquad$ $11 - \underline{4} = 7$

$15 - \underline{5} = 10$ $\qquad$ $14 - \underline{5} = 9$

Now the problem is turned around. $\underline{\quad ? \quad} - 5 = 3$

Sue took 5 of my sticks away.

Draw 5 sticks. $\underline{\text{iiiii}}$

I have 3 left.

Draw 3 sticks. $\underline{|||}$

How many did I have before Sue took any?

Count them all. $\underline{8}$

Now fill in the numeral.

$\underline{8} - 5 = 3$
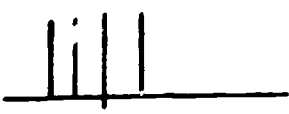
For extra practice, do Page 14.

TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
C	07	6	5

Fill in the missing numerals.

$\underline{9} - 4 = 5$

Draw the 4 sticks which were taken away. $||||$

Draw the 5 you have left. $|||||$

Count them all.

$\underline{10} - 4 = 6$

$\underline{11} - 4 = 7$

$\underline{12} - 4 = 8$

$\underline{8} - 2 = 6$ $\underline{10} - 5 = 5$

$\underline{9} - 3 = 6$ $\underline{9} - 5 = 4$

$\underline{10} - 6 = 4$ $\underline{8} - 5 = 3$

$10 - \underline{2} = 8$ $9 - \underline{7} = 2$

$\underline{10} - 2 = 8$ $\underline{9} - 7 = 2$

$7 - \underline{3} = 4$ $12 - \underline{8} = 4$

$\underline{7} \quad 3 = 4$ $\underline{12} - 8 = 4$

TOTAL POINTS	NUMBER CORRECT
20	

LEVEL	UNIT	SKILL	PAGE
C	07	6	6

126

Fill in the missing numerals.

< 0 | | | | | | | | | | | | | | | >
  0   5   10   15
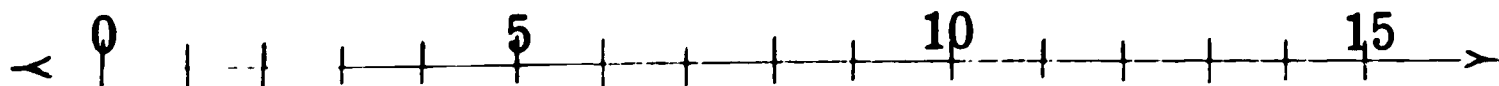
15 − _5_ = 10   12 − _4_ = 8

15 − _6_ = 9   12 − _3_ = 9

15 − _7_ = 8   12 − _2_ = 10

15 − _8_ = 7   12 − _1_ = 11

_8_ − 4 = 4   _10_ − 4 = 6

_7_ − 4 = 3   _11_ − 4 = 7

_6_ − 4 = 2   _12_ − 4 = 8

_5_ − 4 = 1   _13_ − 4 = 9

TOTAL POINTS	NUMBER CORRECT
16	

LEVEL	UNIT	SKILL	PAGE
C	07	6	7

127

Fill in the missing numerals.

$9 + 4 = \underline{13}$

$9 + \underline{4} = 13$

$\underline{9} + 4 = 13$

$13 - 9 = \underline{4}$

$13 - \underline{9} = 4$

$\underline{13} - 9 = 4$

$5 + 11 = \underline{16}$

$5 + \underline{11} = 16$

$\underline{5} + 11 = 16$

$16 - 11 = \underline{5}$

$16 - \underline{11} = 5$

$\underline{16} - 11 = 5$

$7 + 8 = \underline{15}$

$7 + \underline{8} = 15$

$\underline{7} + 8 = 15$

$15 - 7 = \underline{8}$

$15 - \underline{7} = 8$

$\underline{15} - 7 = 8$

$10 + 8 = \underline{18}$

$10 + \underline{8} = 18$

$\underline{10} + 8 = 18$

$18 - 8 = \underline{10}$

$18 - \underline{8} = 10$

$\underline{18} - 8 = 10$

TOTAL POINTS	NUMBER CORRECT
24	

LEVEL	UNIT	SKILL	PAGE
C	07	6	8

Fill in the missing numerals.

$$9 - 2 \underset{\text{side A}}{\underbrace{}} \left(= \right) \underset{\text{side B}}{\underbrace{4 + \underline{}}}$$

└─This symbol means that

both sides are equal.

Side A has the value of $9 - 2 = \underline{7}$

How can you make the value of Side B equal to 7?

$$4 + \underline{3} = 7$$

Now fill in the numeral.

$$9 - 2 = 4 + \underline{3}$$

$$6 - 2 = 3 + \underline{}$$

Subtract the value of side A and keep the answer in your head.

Then ask $3 + ? = 4$

$$8 - 3 = 2 + \underline{3} \qquad\qquad 9 - 4 = \underline{3} + 2$$

$$5 - 1 = 3 + \underline{1} \qquad\qquad 7 - 1 = \underline{2} + 4$$

Check and see if both sides are equal.

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
C	07	6	9

129

Fill in the missing numerals.

$$10 - ? = 8$$

$$5 + 3 = 10 - \underline{2}$$

The value of both sides equal 8.

$$2 + 5 = 10 - \underline{3} \qquad\qquad 4 + 4 = 12 - \underline{4}$$

$$8 + 2 = 12 - \underline{2} \qquad\qquad 3 + 3 = 13 - \underline{7}$$

$$4 + 9 = 15 - \underline{2} \qquad\qquad 6 + 7 = 15 - \underline{2}$$

$$4 + 2 = \underline{10} - 4 \qquad\qquad 4 + 4 = \underline{10} - 2$$

$$5 + 1 = \underline{9} - 3 \qquad\qquad 6 + 3 = \underline{11} - 2$$

$$2 + 3 = \underline{9} - 4 \qquad\qquad 3 + 5 = \underline{15} - 7$$

How can you make the value of this side equal 5?

The value of this side equals 5.

TOTAL POINTS	NUMBER CORRECT
13	

LEVEL	UNIT	SKILL	PAGE
C	07	6	10

Fill in the missing numerals.

$$\underline{} + 5 = 14 - 7$$

$$\underline{3} + 3 = 10 - 4 \qquad\qquad 6 + \underline{2} = 9 - 1$$

$$\underline{1} + 4 = 7 - 2 \qquad\qquad 4 + \underline{5} = 12 - 3$$

$$\underline{2} + 6 = 11 - 3 \qquad\qquad 5 + \underline{5} = 13 - 3$$

$$10 - \underline{3} = 4 + 3 \qquad\qquad \underline{11} - 5 = 1 + 5$$

$$13 - \underline{6} = 2 + 5 \qquad\qquad \underline{9} - 4 = 3 + 2$$

$$15 - \underline{10} = 2 + 3 \qquad\qquad \underline{10} - 2 = 4 + 4$$

$$11 - \underline{5} = 4 + 2 \qquad\qquad \underline{12} - 5 = 5 + 2$$

For extra practice, do Page 15.

TOTAL POINTS	NUMBER CORRECT
15	

LEVEL	UNIT	SKILL	PAGE
C	07	6	11

CET I

Fill in the blanks to make true number sentences.

$7 + 3 = \underline{\hspace{1cm}} - 7$

$5 + \underline{\hspace{1cm}} = 7 - 1$

$\underline{\hspace{1cm}} - 4 = 6 + 2$

$16 - 5 = 9 + \underline{\hspace{1cm}}$

$12 - 8 = \underline{\hspace{1cm}} + 1$

$3 + 7 = 14 - \underline{\hspace{1cm}}$

$\underline{\hspace{1cm}} - 2 = 7 + 9$

$5 + \underline{\hspace{1cm}} = 8 - 1$

LEVEL	UNIT	SKILL	PAGE
C	07	6	12

Fill in the missing numerals.

$$6 + ? = 8$$
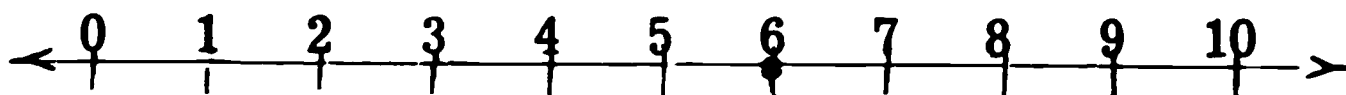
You are on 6.

Take ___2___ steps to 8.

$$6 + \underline{2} = 8$$

$$? + 5 = 9$$
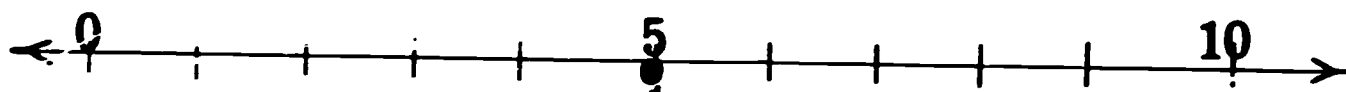
Here you are on 5.

Take ___4___ steps to 9.

$$\underline{4} + 5 = 9$$

$$2 + \underline{7} = 9$$ $$\underline{6} + 4 = 10$$

$$\underline{5} + 3 = 8$$ $$6 + \underline{1} = 7$$

$$7 + \underline{3} = 10$$ $$\underline{4} + 2 = 6$$

TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
C	07	6	13

...

Fill in the missing numerals.

$$8 - ? = 5$$

You are on 8.
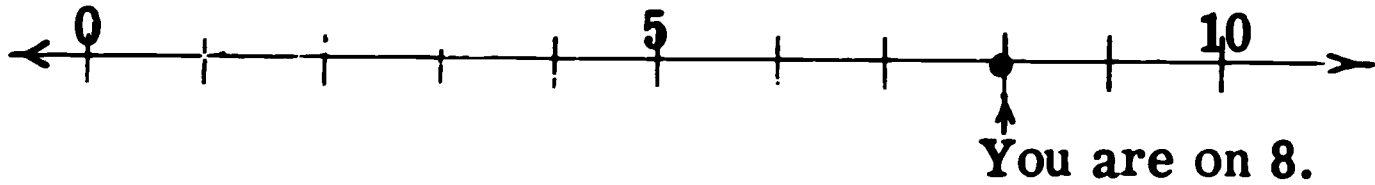
Take __3__ steps back to 5.

$$8 - \underline{3} = 5$$

$$? - 2 = 7$$

Here are the 2 which were taken

away → ||

Here are the 7 you have left → |||||||

Count them.

$$\underline{9} - 2 = 7$$

$$10 - \underline{2} = 8 \qquad \underline{7} - 5 = 2$$

$$4 - \underline{1} = 3 \qquad \underline{16} - 7 = 9$$

$$11 - \underline{2} = 9 \qquad \underline{10} - 3 = 7$$

$$16 \quad \underline{6} = 10 \qquad \underline{9} - 6 = 3$$

TOTAL POINTS	NUMBER CORRECT
11	

LEVEL	UNIT	SKILL	PAGE
C	07	6	14

Fill in the missing numerals.

$$\underline{7} + 3 = 15 - 5$$

The value of this side equals 10.

? + 3 = 10

$$\underline{9} - 5 = 2 + 2$$

The value of this side equals 4.

? − 5 = 4

9

$$\underline{5} + 4 = 12 - 3$$

$$9 - \underline{3} = 2 + 4$$

6

$$3 + \underline{8} = 16 - 5$$

$$\underline{10} - 3 = 4 + 3$$

$$\underline{4} + 2 = 12 - 6$$

$$8 - \underline{2} = 3 + 3$$

$$1 + \underline{4} = 8 - 3$$

$$\underline{16} - 10 = 1 + 5$$

$$\underline{1} + 7 = 11 - 3$$

$$18 - \underline{8} = 5 + 5$$

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
C	07	6	15

CET II

Fill in the blanks to make true number sentences.

C	TL. PTS.	
I	8	100%
R	NO. OF PTS.	%
C		
L	7	83
E	6	75
	5	63
C	4	50
O	3	38
R	2	25
R	1	13
E		
C		
T		
B		
O		
X		

$16 - 4 = \underline{\quad} + 9$

$2 + \underline{\quad} = 17 - 2$

$\underline{\quad} + 3 = 13 - 4$

$15 - 2 = 6 + \underline{\quad}$

$18 - 0 = \underline{\quad} + 11$

$12 - \underline{\quad} = 5 + 6$

$5 + 3 = 14 - \underline{\quad}$

$\underline{\quad} \, 8 = 2 + 6$

OBJECTIVE: Fills in a missing addend to complete two-step equations which combine addition and subtraction expressions. Sums to 18.

STANDARD TEACHING SEQUENCE

Page		Supplementary Material
1.	Uses number line to supply missing addend in one-step equations.	
2.	Uses number line to supply missing addend in one-step equation.	13
3.	Supplies missing addends in one-step equations; no number line.	
4.	Uses number line to supply missing numeral in subtraction. equations.	
5.	Uses number line and counting to supply missing numeral in subtraction equations.	14
6.	Supplies missing numerals in one-step subtraction equations.	
7.	Supplies missing numerals in sequences of one-step subtraction equations.	
8.	Supplies missing numerals in sequences of one-step addition and subtraction equations.	
9.	Supplies a numeral on the addition side of a two-step equation which combines addition and subtraction.	
10.	Supplies numeral on the subtraction side of a two-step equation.	
11.	Supplies numerals in two-step equations.	15
12.	CET I.	
	CET II.	16

Circle pages that are to be done.

137

Standard Teaching Sequence, Con't

1967 - 68

Teaching Aids:

Instructo words, numerals, symbols
Add - a Count scale
Counting sticks, cubes
Peg boards and pegs
Abacus sets
Checkit cards (6A - 6F)
Ideal relationship cards
Help Yourself Flash Cards

This is the Posttest which has been completed by John and corrected by the Aide.

Analyze the Posttest results and make a decision about John's mastery of this unit.

Complete the record of John's work in the C-COP unit by entering the required information on the first Prescription Sheet.

SCHOOL CODE NAME _John Tanes_

NUMBER _4444_ CLASS _3_ _4m_

ipi

MATHEMATICS

Post Test

LEVEL **C**

COMBINATION OF PROCESSES (07)

Appleton-Century-Crofts (ACC) Division of Meredith Publishing Company

DEVELOPMENTAL EDITION

Directions: Add or subtract, as indicated by the sign.

$$
\begin{array}{r} 68 \\ -\ 18 \\ \hline 50 \end{array}
\qquad
\begin{array}{r} 43 \\ +\ 51 \\ \hline 94 \end{array}
$$

$$27 - 12 = \underline{15}$$

$$38 + 60 = \underline{98}$$

$$
\begin{array}{r} 49 \\ -\ 10 \\ \hline 39 \end{array}
\qquad
\begin{array}{r} 35 \\ +\ 44 \\ \hline 79 \end{array}
$$

141

Directions: Add or subtract.

$$\begin{array}{r} 4 \text{ yards} \\ + \ 3 \text{ yards} \\ \hline 7 \text{ yards} \end{array} \qquad \begin{array}{r} 11 \text{ cents} \\ + \ 5 \text{ cents} \\ \hline 16 \text{ cents} \end{array}$$

$$\begin{array}{r} 17 \text{ dozen} \\ - \ 4 \text{ dozen} \\ \hline 13 \text{ dozen} \end{array} \qquad \begin{array}{r} 4 \text{ feet} \\ + \ 7 \text{ feet} \\ \hline 11 \text{ feet} \end{array}$$

12 yards $-$ 1 yard = __11__ yards

8 feet $-$ 3 feet = __5__ feet

10 inches $+$ 3 inches = __13__ inches

Directions: Solve each problem.

On Saturday John's father spent
3 hours mowing the lawn and 4
hours trimming the hedge. How
long did John's father work in
the yard Saturday?   _____7_____ hours

Dick had 15 cents to spend. He
bought a toy truck for 12 cents.
How much did he have left? _____3_____ cents

Jane had a red pencil that was
6 inches long and a green pencil
that was 11 inches long. How
much longer was Jane's
green pencil than her red
pencil?   _____5_____ inches

Bill colored 2 dozen Easter
eggs and his mother colored
5 dozen. How many dozen
colored Easter eggs did Bill
and his mother have
altogether?   _____7_____ dozen

C	TL. PTS.	
I R C L E	4	100
	NO. OF PTS.	
	3	75
C O R R E C T	2	5
	1	25
B O X		

Directions: Put >, <, or = in each circle to make a true number sentence.

3 hours + 5 hours (=) 6 hours + 2 hours

16 inches − 5 inches (>) 4 inches + 6 inches

9 dimes − 4 dimes (=) 3 dimes + 2 dimes

6 yards + 9 yards (<) 18 yards − 1 yard

8 pennies − 5 pennies (>) 9 pennies − 7 pennies

Directions: Put = or ≠ in each circle to make a true number sentence.

9 inches + 3 inches (=) 10 inches + 2 inches

6 dimes + 2 dimes (≠) 10 dimes − 4 dimes

Directions: Put + or − in each circle to make a true number sentence.

7 (−) 6 = 1

9 (−) 6 = 3

6 (+) 7 = 13

13 (−) 3 = 10

4 (+) 3 = 7

Directions: Fill in the blanks to make each number sentence true.

$$2 + \underline{5} = 10 - 3$$

$$6 + 1 = 12 - \underline{7} \;\times$$

$$2 - \underline{0} = 9 - 7$$

$$16 - \underline{12} = 3 + 1$$

$$18 - 6 = \underline{8} + 6 \;\times$$

| | | SCHOOL STAMP | U. S. 2-3 | STUDENT NAME ///////////// | STUDENT NUMBER U. S. | 4 | 5 | 6 |

| | GRADE U. S. | 9 | ROOM //////// | UNIT | U. S. | 10 | 11 | 12 |

UNIT DATES		SCHOOL CALENDAR	
UNIT BEGAN	U. 13-16	BEGAN	U. 23-25
UNIT ENDED	U. 17-20	ENDED	U. 26-28
DAYS WORKED*	U. 21-22	Worked	///////

	SKILL BOOKLETS						CURRICULUM TEST				SC'S INIT.	DAYS* WORKED IN SKILL
	DATE PRES. S. 13-16	PRES. INIT. S. 17-19	SKILL NO. S. 20-21	PAGE NO. S. 22-57	INST. TECH CODES S. 58-71	SCORE	MAX. POINTS	PART 1		PART 2			
								SCORE	% S. 72-73	SCORE	% S. 74-75		S. 76-77
1													
2													
3													
4													
5													
6													
7													
8													
9													
12													
13													
14													
15													
16													
17													
18													

CODES	INSTRUCTIONAL TECHNIQUE
01	TEACHER TUTOR
02	PEER TUTOR
03	SMALL GROUP (2-10)
04	LARGE GROUP (11-UP)
05	SEMINAR
06	CURR. TEXTS
07	OTHER TEXTS
08	FILM STRIPS
09	RECORDS, TAPES
10	RESEARCH
11	TUTOR OF OTHERS
12	OTHERS

OVERFLOW
U. & S. 79

UNIT CARD: "U" IN COLUMN 80
SKILL CARD: "S" IN COLUMN 80

KEYPUNCH SAMPLE

SKILL U. 29-31 X01 PRE % U. 32-33 80 POST % U. 34-35 95 TO 78

PRE AND POST TEST SCORES									
ENTER SKILL NUMBER	ENTER POINTS PER SKILL	PRE	%	POST	%	POST	%	POST	%
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									

147

SCHOOL STAMP | U. S. 2-3

STUDENT NAME

STUDENT NUMBER | U. S. | 4 | 5 | 3

GRADE U. S. | 9 | **ROOM** | **UNIT** | U. S. | 10 | 11 | 12

UNIT DATES

UNIT BEGAN		U. 13-16
UNIT ENDED		U. 17-20
	DAYS WORKED*	U. 21-22

SCHOOL CALENDAR

BEGAN		U. 23-25
ENDED		U. 26-28
Worked		

	SKILL BOOKLETS								CURRICULUM TEST				SC'S INIT.	DAYS* WORKED IN SKILL
	DATE PRES. S. 13-16	PRES. INIT. S 17-19	SKILL NO. S 20-21	PAGE NO. S. 22-57	INST. TECH CODES S. 58-71	SCORE	MAX. POINTS		PART 1 SCORE	% S. 72-73	PART 2 SCORE	% S. 74-75		S. 76-77
1														
2														
3														
4														
5														
6														
7														
8														
9														
12														
13														
14														
15														
16														
17														
18														

CODES	INSTRUCTIONAL TECHNIQUE
01	TEACHER TUTOR
02	PEER TUTOR
03	SMALL GROUP (2-10)
04	LARGE GROUP (11-UP)
05	SEMINAR
06	CURR. TEXTS
07	OTHER TEXTS
08	FILM STRIPS
09	RECORDS, TAPES
10	RESEARCH
11	TUTOR OF OTHERS
12	OTHERS

| OVERFLOW |
| U. & S. 79 |

UNIT CARD: "U" IN COLUMN 80
SKILL CARD: "S" IN COLUMN 80

PRE AND POST TEST SCORES

ENTER SKILL NUMBER	ENTER POINTS PER SKILL	PRE	%	POST	%	POST	%	POST	%
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									

KEYPUNCH SAMPLE

SKILL PRE % POST %
U. 29-31 U. 32-33 U. 34-35 TO 78
X01 80 95

SCHOOL STAMP	U. S. 2-3	STUDENT NAME ////////////////////////	STUDENT NUMBER U. S.	4	5	

GRADE	U.S.	9	ROOM /////////	UNIT	U.S.	10	11	12

UNIT DATES		
UNIT BEGAN		U. 13-16
UNIT ENDED		U. 17-20
	DAYS WORKED*	U. 21-22

SCHOOL CALENDAR		
BEGAN		U. 23-25
ENDED		U. 26-28
Worked		//////

SKILL BOOKLETS							CURRICULUM TEST				SC'S INIT.	DAYS* WORKED IN SKILL
DATE PRES. S. 13-16	PRES. INIT. S. 17-19	SKILL NO. S. 20-21	PAGE NO. S. 22-57	INST. TECH CODES S. 58-71	SCORE	MAX. POINTS	PART 1		PART 2			
							SCORE	% S. 72-73	SCORE	% S. 74-75		S.
3												
4												
5												
6												
7												
8												
9												
12												
13												
14												
15												
16												
17												
18												

CODES	INSTRUCTIONAL TECHNIQUE
01	TEACHER TUTOR
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03	SMALL GROUP (2-10)
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11	TUTOR OF OTHERS
12	OTHERS

OVERFLOW
U. S. 79

KEYPUNCH SAMPLE

PRE % U. 32-33 80
POST % U. 34-35 95
TO 78

PRE AND POST TEST SCORES							
ENTER SKILL NUMBER	ENTER POINTS PER SKILL	PRE	%	POST	%	POST	%
X							
X							
X							
X							
X							
X							
X							
X							
X							
X							
X							
X							
X							
X							

149

SCHOOL STAMP | U. S. 2-3

STUDENT NAME

STUDENT NUMBER | U. S. | 4 | 5 | 6

GRADE | U. S. | 9 | ROOM

UNIT | U. S. | 10 | 11 | 12

UNIT DATES		
UNIT BEGAN		U. 13-16
UNIT ENDED		U. 17-20
	DAYS WORKED*	U. 21-22

SCHOOL CALENDAR		
BEGAN		U. 23-25
ENDED		U. 26-28
Worked		

	SKILL BOOKLETS						CURRICULUM TEST				SC'S INIT.	DAYS* WORKED IN SKILL
	DATE PRES. S. 13-16	PRES. INIT. S. 17-19	SKILL NO. S. 20-21	PAGE NO. S. 22-57	INST. TECH CODES S. 58-71	SCORE	MAX. POINTS	PART 1 SCORE	PART 1 % S. 72-73	PART 2 SCORE	PART 2 % S. 74-75	S. 76-77
1													
2													
3													
4													
5													
6													
7													
8													
9													
12													
13													
14													
15													
16													
17													
18													

CODES	INSTRUCTIONAL TECHNIQUE
01	TEACHER TUTOR
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12	OTHERS

OVERFLOW

PUNCH SAMPLE
PRE % U. 32-33 80
POST % U. 34-35 95
TO 78

PRE AND POST TEST SCORES									
ENTER SKILL NUMBER	ENTER POINTS PER SKILL	PRE	%	POST	%	POST	%	POST	%
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									

150

Section IV

DEVELOPING A PRESCRIPTION

CASE STUDY - TYPE 4

EILEEN O'BRIEN

E-NUMERATION

DIRECTIONS

This case study is organized in a format that draws upon your experience in writing prescriptions.

The following data is provided for you:

You will analyze this information and use it to write the unit prescription for Eileen in E-Numeration.

Use the STS booklets for Skills 1-8 to simulate Eileen's work on the skill sheets you prescribe. (pages 159-348)

Your prescriptions should reflect the variety of instructional decisions and settings that you have been working with to this point.

It will be helpful if you keep a record of your instructional decisions as you work through this case study. The form of this record is your decision.

Your prescriptions should be recorded on the blank Prescription Sheets located at the back of this case study.

Eileen's Placement Profile is on page 154.

It indicates the units in which Eileen needed work. Study the E-Level
Placement Test on page 155.

Refer to the Unit Test Record on pages 156-7. It shows Eileen's unit
mastery to this point.

Use the Unit Test Record and the Placement Profile as a guide to assigning
the next Pretest to Eileen.

ARITHMETIC PLACEMENT SCORE PROFILE

ipi

MATHEMATICS

SCHOOL STAMP	P. 2-3

STUDENT NAME *Eileen O'Brien*

STUDENT NUMBER | 9 | 9 | 9 | 9 |
| P-4 | 5 | 6 |

GRADE P. | 5/9

ROOM 8

KEYPUNCH SAMPLE			TO P
P. 14-15	P. 16	P. 17-18	
MATH. AREA CODE	PLACED AT LEVEL	% OF PLACEMENT	
01	B	85	

MATHEMATICS AREA	DATE OF TEST P. 10-13	MATH AREA CODE		B	C	D	E	F	G	H	I	PLACE AT LEVEL
NUMERATION	9/20	Ø1	MAX. PTS.				10					E
			SCORE				6					
			%				60					
PLACE VALUE		Ø2	MAX. PTS.				10	10				F
			SCORE				9	6				
			%				90	60				
ADDITION		Ø3	MAX. PTS.				10	10	10			G
			SCORE				10	9	7			
			%				100.	90	70			
SUBTRACTION		Ø4	MAX. PTS.				10	10	10			G
			SCORE				10	10	6			
			%				100	100	60			
MULTIPLICATION		Ø5	MAX. PTS.				10	10				F
			SCORE				8	5				
			%				80	50				
DIVISION		Ø6	MAX. PTS.				10	10				F
			SCORE				8	6				
			%				80	60				
COMBINATION OF PROCESSES		Ø7	MAX. PTS.				10	10				F
			SCORE				9	7				
			%				90	70				
FRACTIONS		Ø8	MAX. PTS.			10	10					D
			SCORE			6	2					
			%			60	20					
MONEY		Ø9	MAX. PTS.				10					E
			SCORE				4					
			%				40					
TIME		1Ø	MAX. PTS.				10					E
			SCORE				3					
			%				30					
SYSTEMS OF MEASUREMENT		11	MAX. PTS.			10	10					D
			SCORE			5	1					
			%			50	10					
GEOMETRY		12	MAX. PTS.				10	10				F
			SCORE				9	3				
			%				90	30				
ADDITION AND SUBTRACTION		34	MAX. PTS.									
			SCORE									
			%									

154

NAME AND
NUMBER **Eileen O'Brien   9999**

DATE_____

CLASS **5**_____

Skill 3 — Directions: Round each number below to the nearest hundred.

499 **500**

30,093 **30,000** ✗

2 **0**

500

30,100

0

Skill 7 — Directions: Write the decimal numerals below as mixed fractions.

7.04 $7\frac{4}{100}$

26.524 $26\frac{524}{100}$ ✗

$7\frac{4}{100}$

$28\frac{524}{1000}$

155

individually prescribed instruction
MATHEMATICS

MATHEMATICS UNIT TEST RECORD

NAME **Eileen O'Brien**

NUMBER **9999**

CLASS **5**

		Level 1–Pre–2	Post 1 2 3 4	Level 1–Pre–2	Post 1 2 3 4	Level 1–Pre–2	Post 1 2 3 4	Level 1–Pre–2	Post 1 2 3 4	Level 1–Pre–2	Post 1 2 3 4
NUMERATION (Ø1)	Max.Pts. / Score / Date										
PLACED AT LEVEL **E**											
PLACE VALUE (Ø2)	Max.Pts. / Score / Date										
PLACED AT LEVEL **F**											
ADDITION (Ø3)	Max.Pts. / Score / Date										
PLACED AT LEVEL **G**											
SUBTRACTION (Ø4)	Max.Pts. / Score / Date										
PLACED AT LEVEL **G**											
MULTIPLICATION (Ø5)	Max.Pts. / Score / Date										
PLACED AT LEVEL **F**											
DIVISION (Ø6)	Max.Pts. / Score / Date										
PLACED AT LEVEL **F**											
COMBINATION OF PROCESSES (Ø7)	Max.Pts. / Score / Date										
PLACED AT LEVEL **F**											

UPDATE AND PLACE IN STUDENT FOLDER.

APPLETON–CENTURY–CROFTS REC 1–A

IPI individually prescribed instruction MATHEMATICS

MATHEMATICS UNIT TEST RECORD

NAME **Eileen O'Brien**

NUMBER **9999**

CLASS **5**

		1–Pre–2	Post 1 2 3 4	Level 1–Pre–2	Post 1 2 3 4	Level 1–Pre–2	Post 1 2 3 4	Level 1–Pre–2	Post 1 2 3 4	Level 1–Pre–2	Post 1 2 3 4	Level
FRACTIONS (06)	Max.Pts.	31/47	44/67									
	Score	79	87									
	Date	4/30	10/13									
PLACED AT LEVEL **D**												
MONEY (09)	Max.Pts.											
	Score											
	Date											
PLACED AT LEVEL **E**												
TIME (10)	Max.Pts.											
	Score											
	Date											
PLACED AT LEVEL **E**												
SYSTEMS OF MEASUREMENT (11)	Max.Pts.	44/50	44/50									
	Score	82	92									
	Date	7/6	7/8									
PLACED AT LEVEL **D**												
GEOMETRY (12)	Max.Pts.											
	Score											
	Date											
PLACED AT LEVEL **F**												
SPECIAL TOPICS (13)	Max.Pts.											
	Score											
	Date											
PLACED AT LEVEL												
ADDITION AND SUBTRACTION (34)	Max.Pts.											
	Score											
	Date											
PLACED AT LEVEL												

UPDATE AND PLACE IN STUDENT FOLDER.

Analysis of Student Behavior

1. The behaviors which will help Eileen's learning......

   Eileen is a very good reader; she can work
   independently on all materials.

2. The behaviors which will hamper Eileen's learning......

   Eileen places severe demands on herself; she
   strives for perfection in her work and becomes
   very defeated by the occasional errors she makes.

3. The new behaviors which Eileen will learn in conjunction with
   the IPI math learnings......

   Eileen should learn to diagnose her own learning
   needs and analyze her errors.

Describe how your prescriptions will attempt to reflect these behaviors......

1. _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____

2. _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____

3. _____
    _____
    _____
    _____
    _____
    _____
    _____

This is a copy of the Pretest completed by Eileen and corrected by the Aide.

Record (in the role of Aide) the Pretest results on the first Prescription Sheet in your packet.

Analyze the Pretest results and write the first prescription.

SCHOOL CODE   NAME *Eileen O'Brien*

NUMBER *9999*   CLASS *5*   *En. 8*

ipi

individually prescribed instruction

MATHEMATICS

Pre-Test

LEVEL E

NUMERATION (01)

TOTAL PTS. 30/52

62%

DEVELOPMENTAL EDITION

Directions: Fill in the blanks in each row, counting forward by 1's.

235,198,   _235,199_,   _235,200_,   _235,201_

54,684,   _54,684_ X,   54,685 X,   54,686 X

799,997,   _799,998_,   _799,999_,   _799,991_ X

986,252,   _986,253_,   _986,254_,   _986,255_

29,999,   _29,99_ X,   ___ X,   ___ X

162

Directions: Circle all of the even numbers.

5   27   (60)   (458)   (1,000)   567

Directions: Put an X on the word that is the correct ending for each sentence.

The sum of two even numbers is . . .

eⱥen   odd

The product of two odd numbers is . . .

even   oⱥd

The difference between an odd and even number is . . .

even   oⱥd

The sum of two odd numbers is . . .

even   oⱥd

Directions: Round each of the numbers to the nearest hundred.

697   _*700*_

415   _*400*_

41,666   _*42,000*_ ✗

20,031   _*20,000*_

Directions: Estimate the answers to the problems below by first rounding the numbers to the nearest ten and then adding or subtracting. Circle the correct estimated answer.

29 books + 12 books are how many books?

43 books   40 books   (30 books)   20 books   ✗

348 plus 1,309?

1,640   1,650   1,660   (1,670)   ✗

Sarah gave away 27 of her 42 jacks. How many did she have left?

40   30   20   (10)

Sam lost 48 of his 103 marbles. How many marbles did Sam have left?

40   (50)   60   70

164

Directions: Write the standard numerals for the following number words.

six hundred seven _607_

three thousand fourteen _3,014_

one thousand nine hundred twenty-seven _1,927_

nine thousand three _9,003_

Directions: Write the following numbers in words.

576 _five hundred seventy-six_

6,005 _six thousand five_

2,711 _two thousand seven hundred eleven_

9,401 _nine thousand four hundred one_

Directions: Write the equivalent decimal fraction for each of these fractions.

$$\frac{5}{10} = \underline{\quad .5 \quad}$$

$$3\frac{7}{10} = \underline{\quad 3.07 \quad} \ X$$

$$48\frac{6}{100} = \underline{\quad 48.006 \quad} \ X$$

$$871\frac{31}{100} = \underline{\quad 871.031 \quad} \ X$$

Directions: Write the equivalent fraction for each of these decimal fractions.

$$.4 = \underline{\quad \frac{4}{10} \quad}$$

$$.39 = \underline{\quad \frac{39}{1000} \quad} \ X$$

$$36.9 = \underline{\quad 36\frac{9}{100} \quad} \ X$$

$$81.07 = \underline{\quad 81\frac{7}{1000} \quad} \ X$$

C I R C L E	TL. PTS	
	8	100%
C O R R E C T	NO OF PTS	
	7	88
	6	75
	5	63
	4	50
	3	38
	2	25
	1	13
B O X		

166

Directions: Write these decimal numbers as mixed fractions.

4.07 $4\frac{7}{1000}$ ✗

25.642 $25\frac{642}{1000}$

76.38 $76\frac{38}{100}$

Directions: Write these decimal numbers as common fractions.

5.2 $5\frac{2}{10}$ ✗

9.971 $9\frac{971}{10}$ ✗

8.43 $8\frac{43}{1000}$ ✗

Directions: Draw an arrow to show the location on the number line
of each decimal number.

1.5

26.25

167

Directions: Write each row of numbers from the smallest to the largest.

CIRCLE CORRECT BOX	TL. PTS.	
	5	100%
	NO. OF PTS	%
	4	80
	3	60
	2	40
	1	20

	smallest		largest
4.01 4.10 0.41	0.41	4.01	4.10

	smallest		largest
.75 .075 7.5	.075	.75	7.5

	smallest		largest
32.6 3.26 3.06	3.06	3.26	32.6

	smallest	X	largest X
9.930 99.30 .993	.993	99.30	9.930

X	smallest	X	largest
.125 12.5 1.25	1.25	.125	12.5

168

SCHOOL CODE   NAME _____

⬤ [   ]

NUMBER _____ CLASS _____

ipi

[illegible handwritten text]

MATHEMATICS

Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL E

NUMERATION (01)

SKILL 1

Appleton-Century-Crofts (ACC) Division of Meredith Publishing Company

DEVELOPMENTAL EDITION

TO THE STUDENT

Can you count to one million?

999,997, _____, _____, _____

You will learn to read and write large numbers in this booklet.

Answers

999,997, 999,998,	
999,999, 1,000,000	

Count your way up the number steps, filling in the missing numerals.
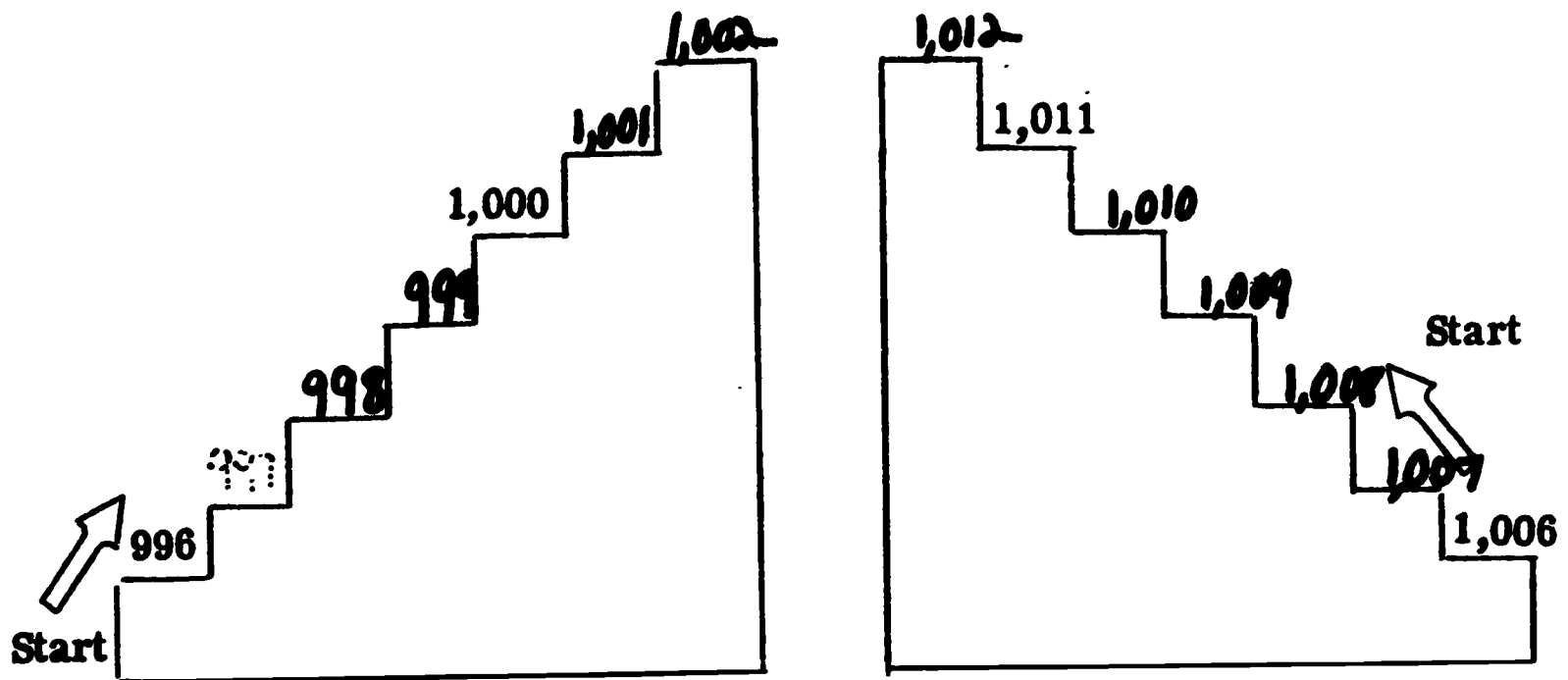
Fill in the missing numerals.
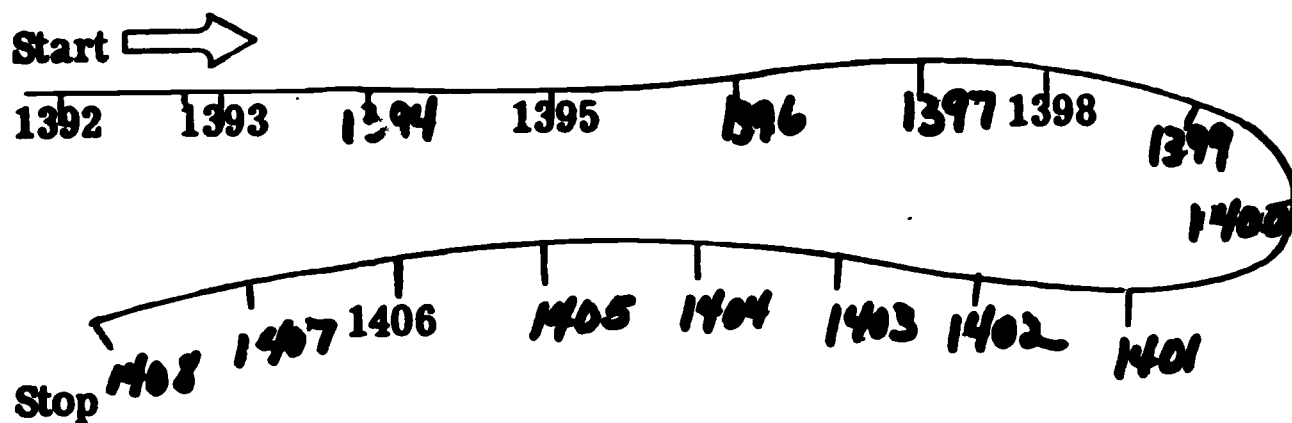
TOTAL POINTS	NUMBER CORRECT
2?	

LEVEL	UNIT	SKILL	PAGE
E	01	1	1

Fill in the missing numerals.

⟹

3,998   3,999   4,000   4,001   4,002   4,003   4,004   4,005   4,006

⟹

8,147   8,148   8,149   8,150   8,151   8,152   8,153   8,154   8,155
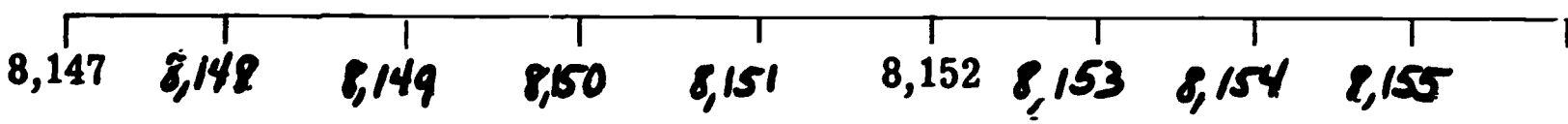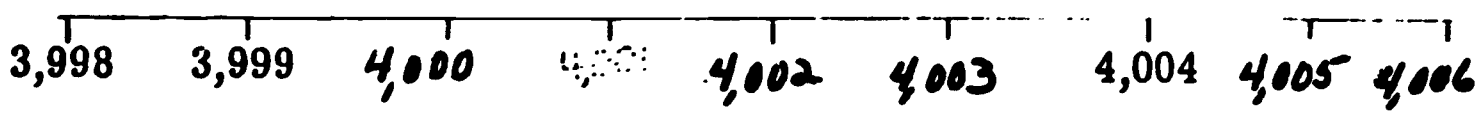
TOTAL POINTS	NUMBER CORRECT
13	

LEVEL	UNIT	SKILL	PAGE
E	01	1	2

You have learned to write and count numerals to the thousands place.

9,999 has 4 digits. It is a numeral which uses the thousands place. After

9,999 we need another place, the ten thousands place.

The first numeral that uses the ten thousands place is 10,000.

Fill in the missing numerals.

9,997,   9,998 ,   9,999 ,   10,000;   10,001,   10,002   10,003   10,004
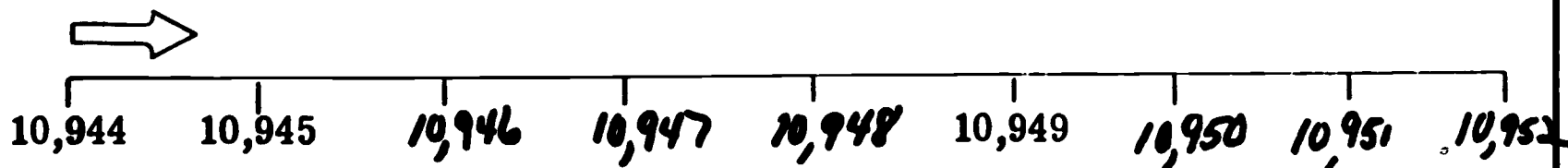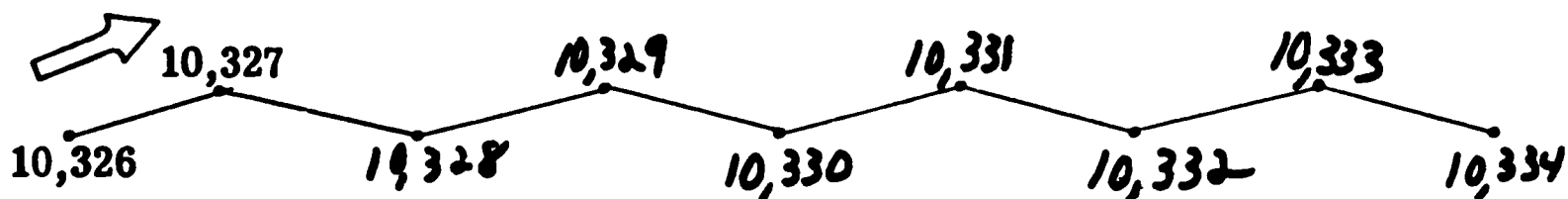
10,327   10,329   10,331   10,333

10,326   10,328   10,330   10,332   10,334

10,944   10,945   10,946   10,947   10,948   10,949   10,950   10,951   10,952

TOTAL POINTS	NUMBER CORRECT		LEVEL	UNIT	SKILL	PAGE
19			E	01	1	3

Fill in the missing numerals.

35,014
35,015
35,016
35,017
35,018
35,019
35,020
35,021

76,329　76,330　76,331　76,332　76,333　76,334　76,335　76,336

88,508　88,509　88,510　88,511　88,512　88,513　88,514
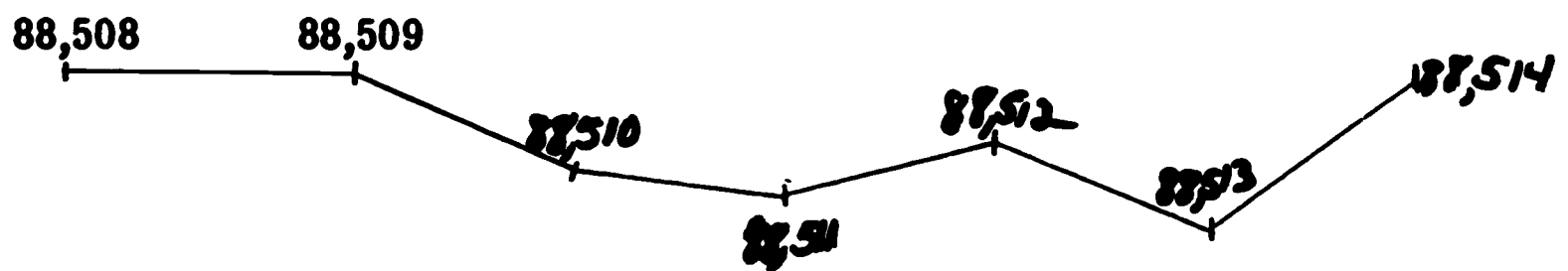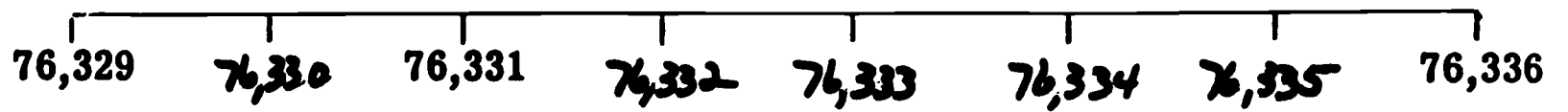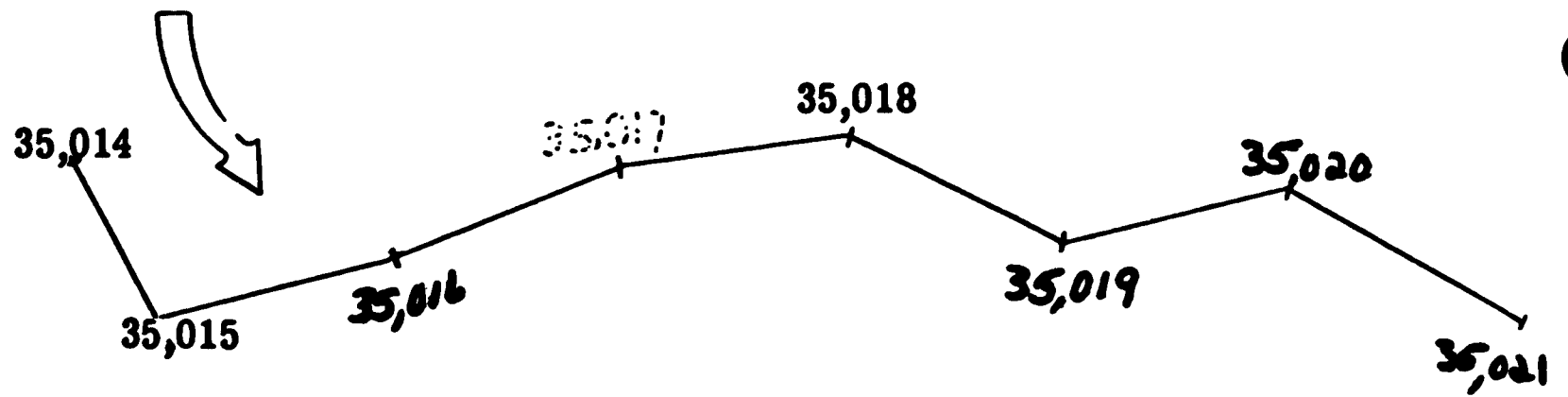
For extra practice, do Page 12.

TOTAL POINTS	NUMBER CORRECT
15	

LEVEL	UNIT	SKILL	PAGE
E	01	1	4

174

You have learned to write and count the numerals to the ten thousands place. After 99,999 we add another place, the hundred thousands place. The first numeral using the hundred thousands place is 100,000.

Fill in the missing numerals.

$\Rightarrow$

99,996   99,997   99,998   99,999   100,000   100,001   100,002   100,003

141,219   141,220   141,221   141,222   141,223   141,224   141,225
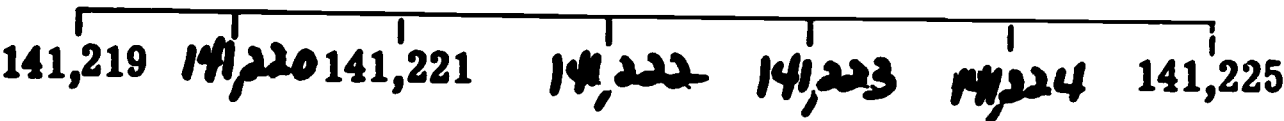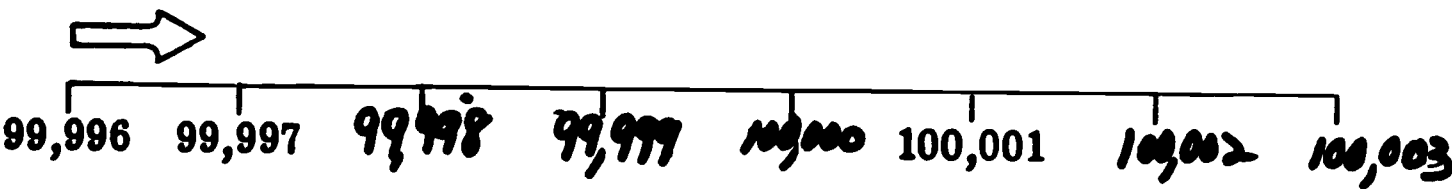
TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
E	01	1	5

Fill in the missing numerals.

326,738   326,740   326,742   326,744   326,746

326,739   326,741   326,743   326,745   326,747

843,546 843,547 843,548 843,549 843,550 843,551 843,552 843,553
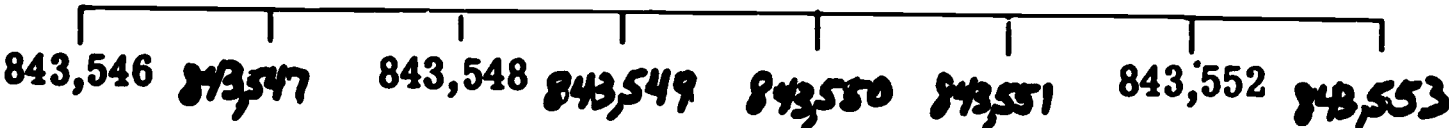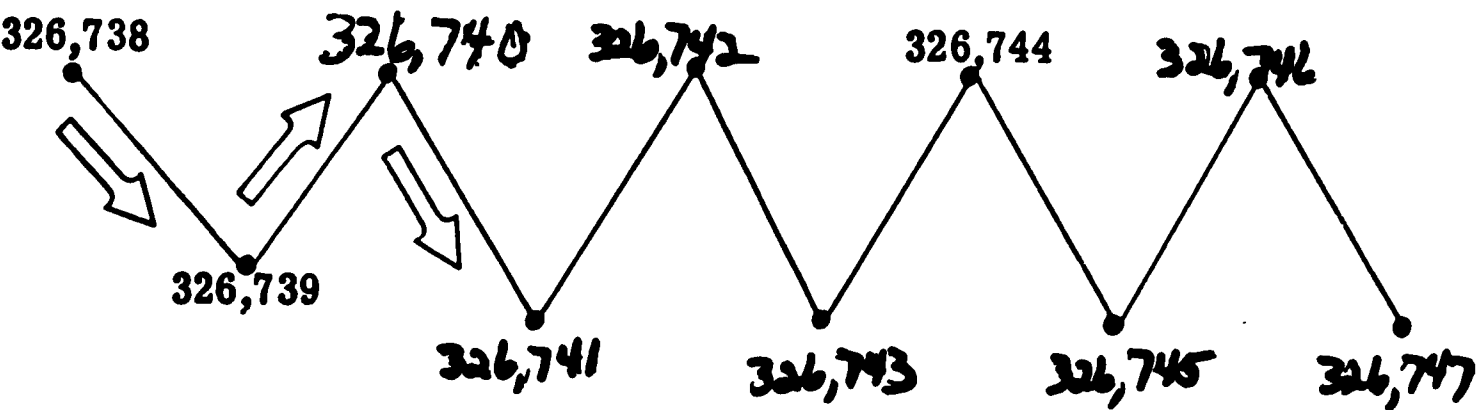
For extra prac ~e, do Page 13.

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	1	6

How many thousands are in these numerals?

1,000	1
100,000	100
10,000	10
360,402	360
87,005	87
5,612	5
411,093	411

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
E	01	1	7

177

You have learned to count numerals to the hundred thousands place. After 999,999 we add another place, the <u>millions</u> place. The first numeral using the millions place is 1,000,000.

Fill in the missing numerals.
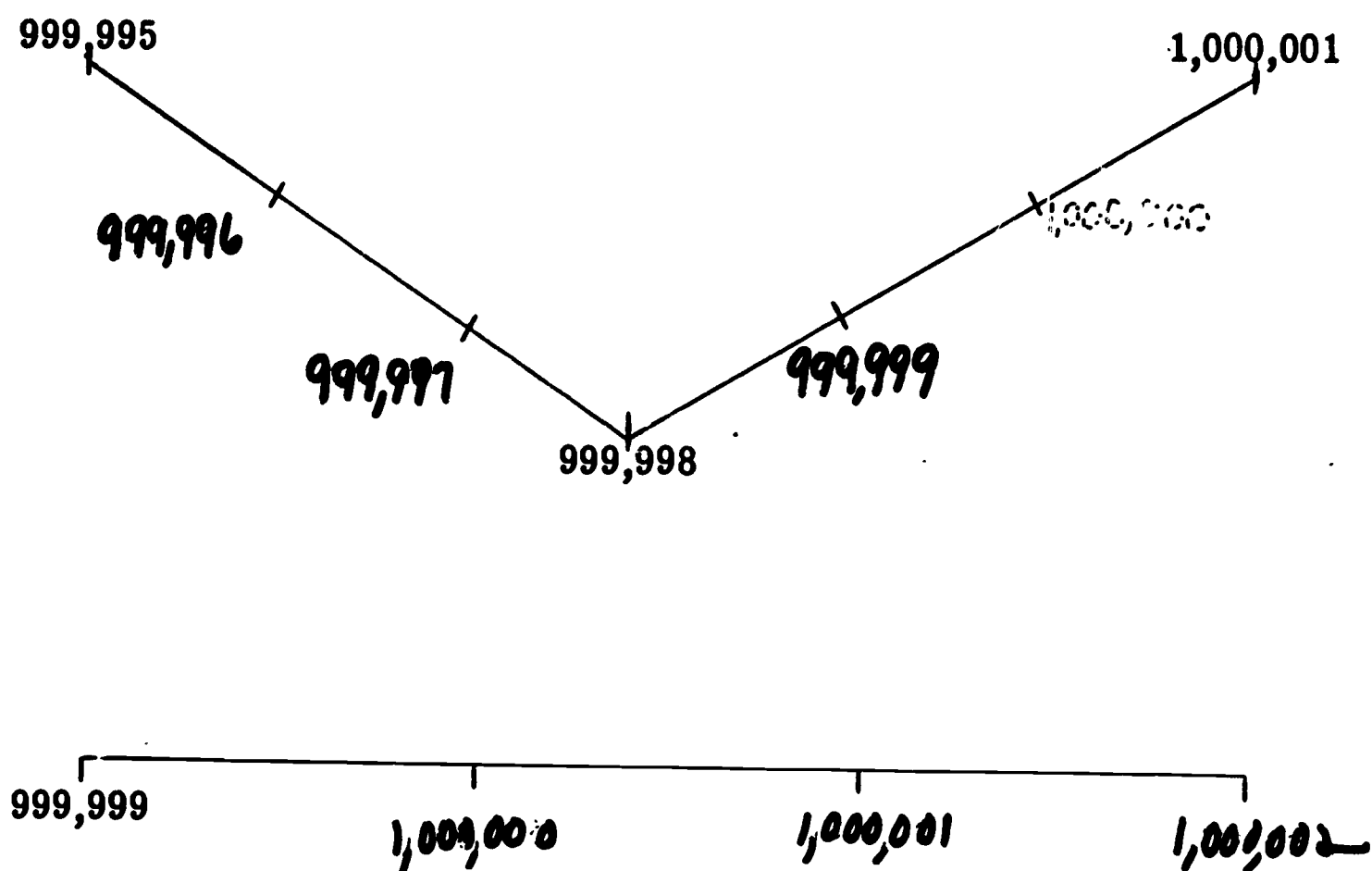
999,995

999,996

999,997

999,998

999,999

1,000,000

1,000,001

999,999   1,000,000   1,000,001   1,000,002

For extra practice, do Page 14.

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
E	01	1	8

178

Fill in the missing numerals.

10,008   10,009   10,010   10,012   10,013

1,000,528   1,000,529   1,000,530   1,000,531   1,000,532

100,400   100,401   100,402   100,403   100,404   100,405

99,998   99,999   100,000   100,002   100,003   100,004
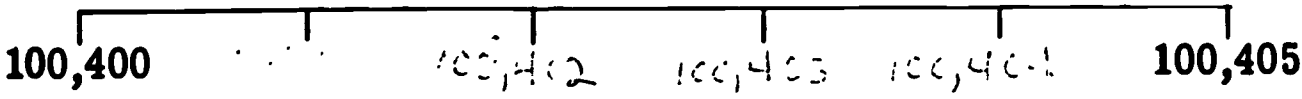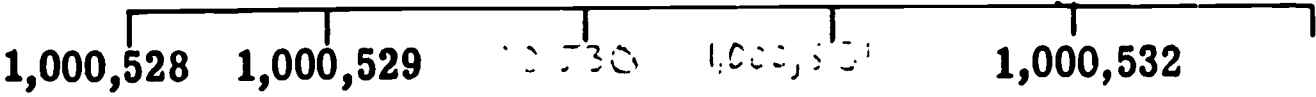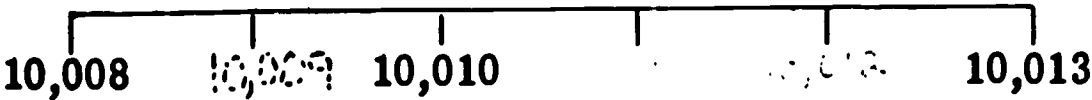
TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
E	01	1	9

Fill in the missing numerals.

999,999   1,000,001   1,000,002   1,000,003   1,000,004 1,000,005 **1,000,006**

1,001,789   1,001,790   1,001,791   1,001,792 1,001,793 **1,001,794**   1,001,796 1,001,797

35,628   35,630 35,631 35,632 35,633 35,634 35,635 35,636 **36,637**
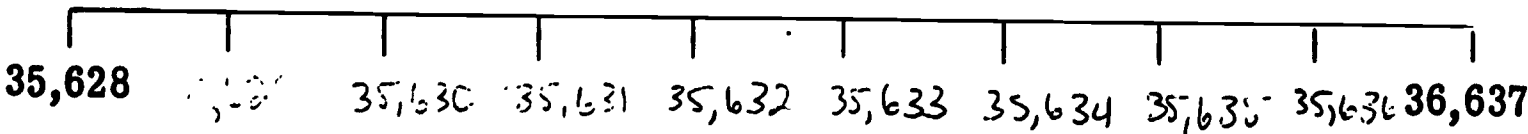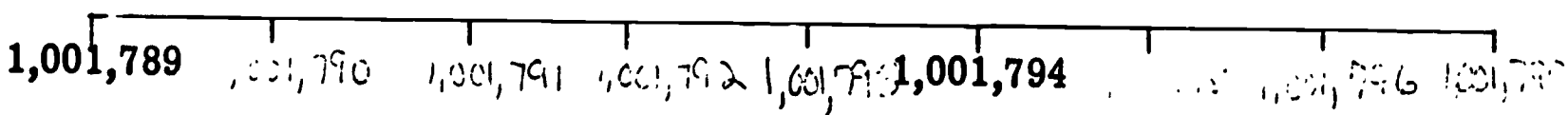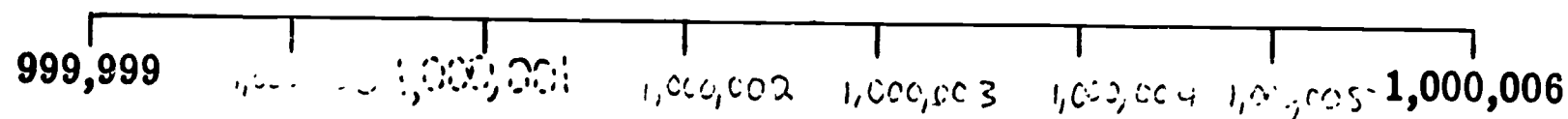
For extra practice, do Page 15.

TOTAL POINTS	NUMBER CORRECT
21	

LEVEL	UNIT	SKILL	PAGE
E	01	1	10

CET I

Fill in the missing numerals.

		TL. PTS.	
		14	100%
		NO. OF PTS.	%
		13	93
		12	86
		11	79
		10	71
		9	64
		8	57
		7	50
		6	43
		5	36
		4	29
		3	21
		2	14
		1	7

632,008,   632,009,   _____,   _____,

13,253,   _____,   _____,   _____,

324,997,   _____,   324,999,   _____,

999,995,   _____,   _____,   999,998

599,999,   _____,   _____,   _____,

6,022,   _____,   _____,   6,025

If the number is odd, write O on the blank. If it is even, write E.

		TL. PTS.	
		6	100%
		NO. OF PTS.	%
		5	83
		4	67
		3	50
		2	33
		1	17

227 ____   66,663 ____

354 ____   872,910 ____

74,992 ____   543,241 ____

LEVEL	UNIT	SKILL	PAGE
E	01	1	11

181

Fill in the missing numerals.

10,001   10,002   10,003   10,004   10,005   10,006   10,007   10,008

57,718   57,719   57,720   57,721   57,722   57,723   57,724   57,725

TOTAL POINTS	NUMBER CORRECT
11	

LEVEL	UNIT	SKILL	PAGE
E	6	1	12

182

Fill in the missing numerals.

824,520

824,517   824,519   824,521   824,522

824,523

569,993   569,994   569,995   569,996   569,997   569,998   569,999   600,000

600,001   600,002   600,003   600,004   600,005   600,006   600,007   600,008

TOTAL POINTS	NUMBER CORRECT		LEVEL	UNIT	SKILL	PAGE
17			F	01	1	13

183

Fill in the missing numerals.

You are going from the hundred thousands place to the millions place.

999,996

999,997

1,000,000   **1,000,002**

| | | 1,000,000 | | | |
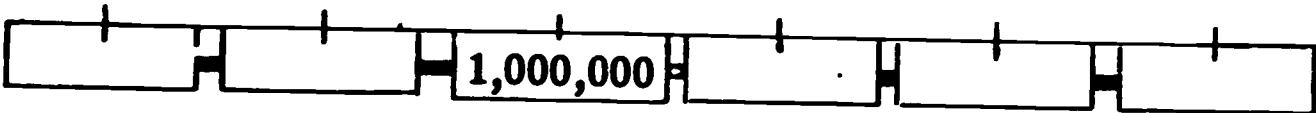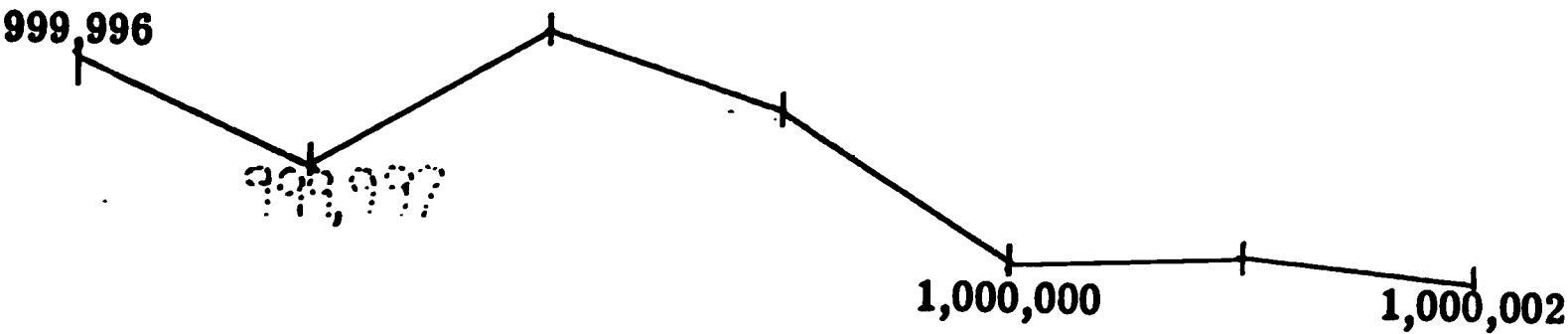
Fill in the missing numerals, starting here.
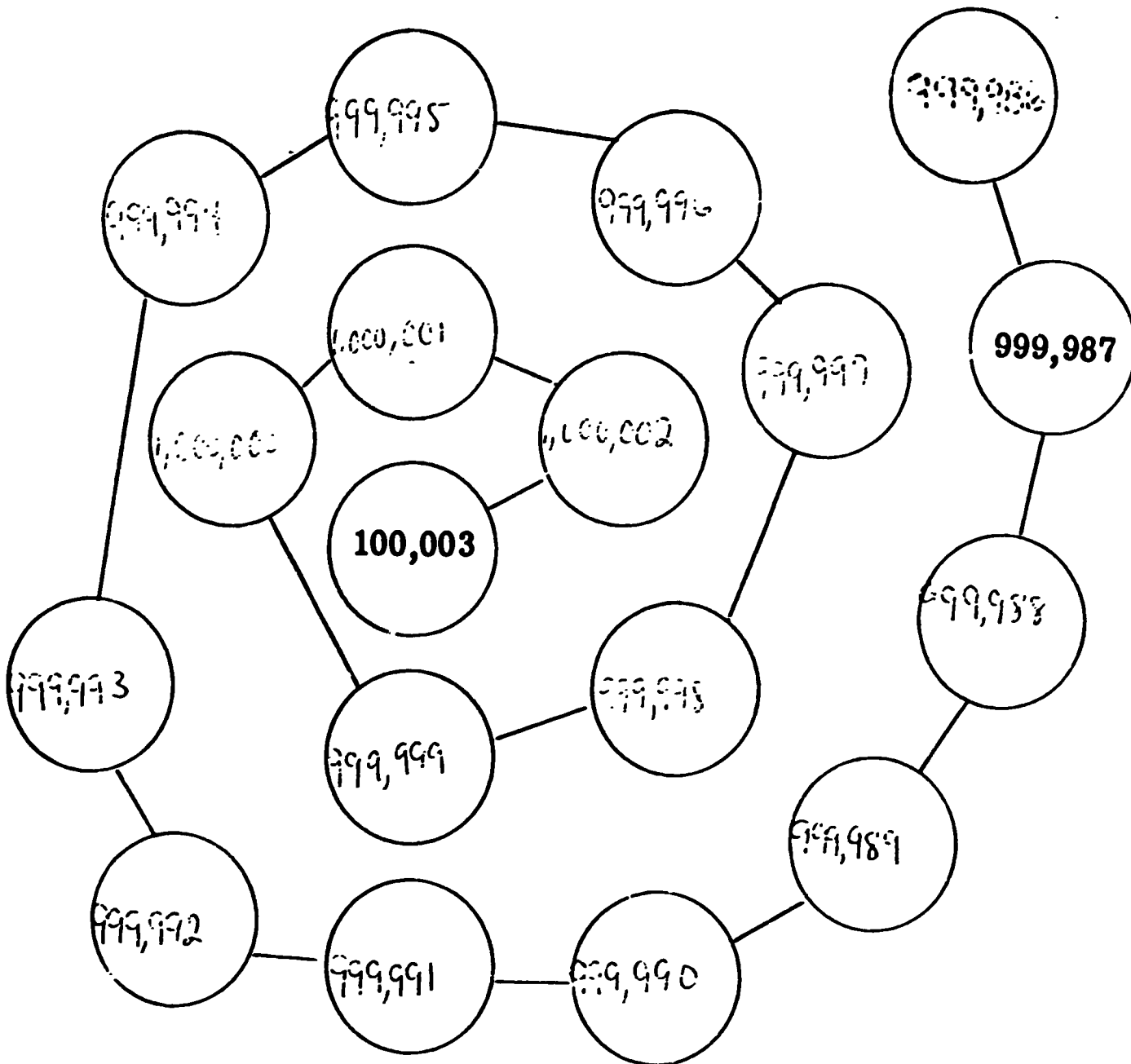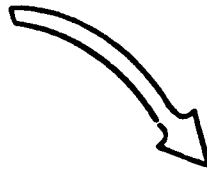
CET II

Fill in the missing numerals.

225,299, _____, 225,301, _____

77,840, _____, _____, 77,843

109,998, 109,999, _____, _____

803,012, _____, 803,014, _____

799,997, _____, _____, _____

5,334, _____, _____, _____

CIRCLE CORRECT BOX	TL. PTS.	
	14	100%
	NO. OF PTS.	%
	13	93
	12	86
	11	79
	10	71
	9	64
	8	57
	7	50
	6	43
	5	36
	4	29
	3	21
	2	14
	1	7

If the number is odd, write 0 in the blank. If it is even, write E.

729,226 ____   4,703 ____

82 ____   36,005 ____

347 ____   420 ____

CIRCLE CORRECT BOX	TL. PTS.	
	6	100%
	NO. OF PTS.	%
	5	83
	4	67
	3	50
	2	33
	1	17

LEVEL	UNIT	SKILL	PAGE
E	01	1	16

LEVEL E, NUMERATION, SKILL 1

OBJECTIVE: Counts to 1,000,000 by reading or writing short sequences of numerals from any starting point.

STANDARD TEACHING SEQUENCE

Page		Supplementary Material
1.	Counts in sequences, 996 – 1,408, filling in the missing numerals.	
2.	Fills in missing numerals in sequences, 3,998 – 8,155 .	
3.	Introduction to ten thousands place. Fills in missing numerals, 9,997 – 10,952 .	
4.	Fills in missing numerals, 35,014 – 88,514 .	12
5.	Introduction to hundred thousands place. Fills in missing numerals, 99,996 – 141,225 .	
6.	Fills in missing numerals, 326,738 – 843,553 .	13
7.	Is asked how many thousands are in various numerals, e.g., 87,005 = 87.	
8.	Introduction to millions place. Fills in missing numerals, 999,995–1,000,002	14
9.	Fills in missing numerals in various sequences.	
10.	Fills in missing numerals in various sequences.	15
11.	CET I.	
	CET II.	16

Circle pages that are to be done.

Page 18

Textbook Resources :

Book	Teaching Pages	Practice Pages
Harcourt, Brace & World, 1966 **Elementary** Mathematics - 4		37
Harcourt, Brace & World, 1966 Elementary Mathematics - 5		15 (problems 7 - 16) 16, 27
Harcourt, Brace & World, 1966 Elementary Mathematics - 6	11	

SCHOOL CODE

NAME _____

NUMBER _____ CLASS _____

ipi

individually prescribed instruction

MATHEMATICS

Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL **E**

NUMERATION (01)

SKILL **2**

Based upon materials developed by The Mathematics Curriculum Staff, Learning Research and Development Center, University of Pittsburgh; Joseph I. Lipson, Ph.D., Director; Edith Kehut; Barbara Thomas.

Written by the staff of Appleton-Century-Crofts under the direction of Jerome D. Kaplan, Ed.D., Teachers College, Columbia University

Appleton-Century-Crofts (ACC) Division of Meredith Publishing Company

DEVELOPMENTAL EDITION

TO THE STUDENT

E means an even number and O means an odd number. Put O or E in the box to complete each equation.

O + E = ☐   E × O = ☐

E − E = ☐   O − O = ☐

You will learn about odd and even numbers in this booklet.

Answers

O + E = [O]   E × O = [E]

E − E = [E]   O − O = [E]

Look at this number line and complete the jumps.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
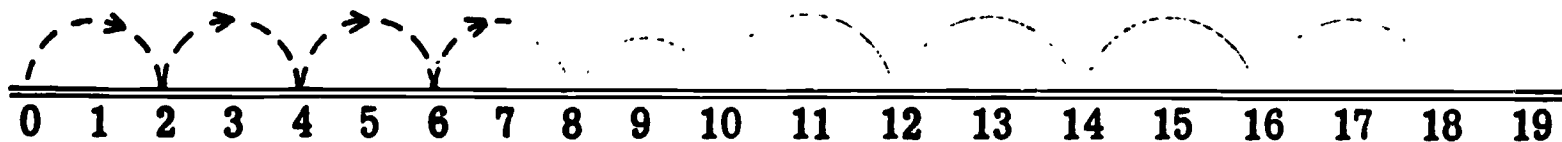
Now use the jumps that you made to complete this table.

0	2	4	6	8	10	12	14	16	18

These numbers are called Even numbers.

Now complete the jumps on this number line.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
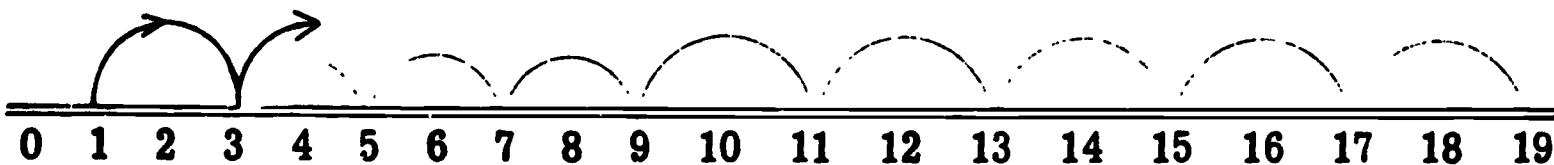
Look where you jumped to complete this table.

1	3	5	7	9	11	13	15	17	19

These numbers are called Odd numbers.

TOTAL POINTS	NUMBER CORRECT
20	

LEVEL	UNIT	SKILL	PAGE
E	01	2	1

191

Fill in the missing even numbers.

_8_ , _10_, _12_, _14_, _16_, _18_, _20_ .

22
24
26
28
30
32

34
36
38
40
42
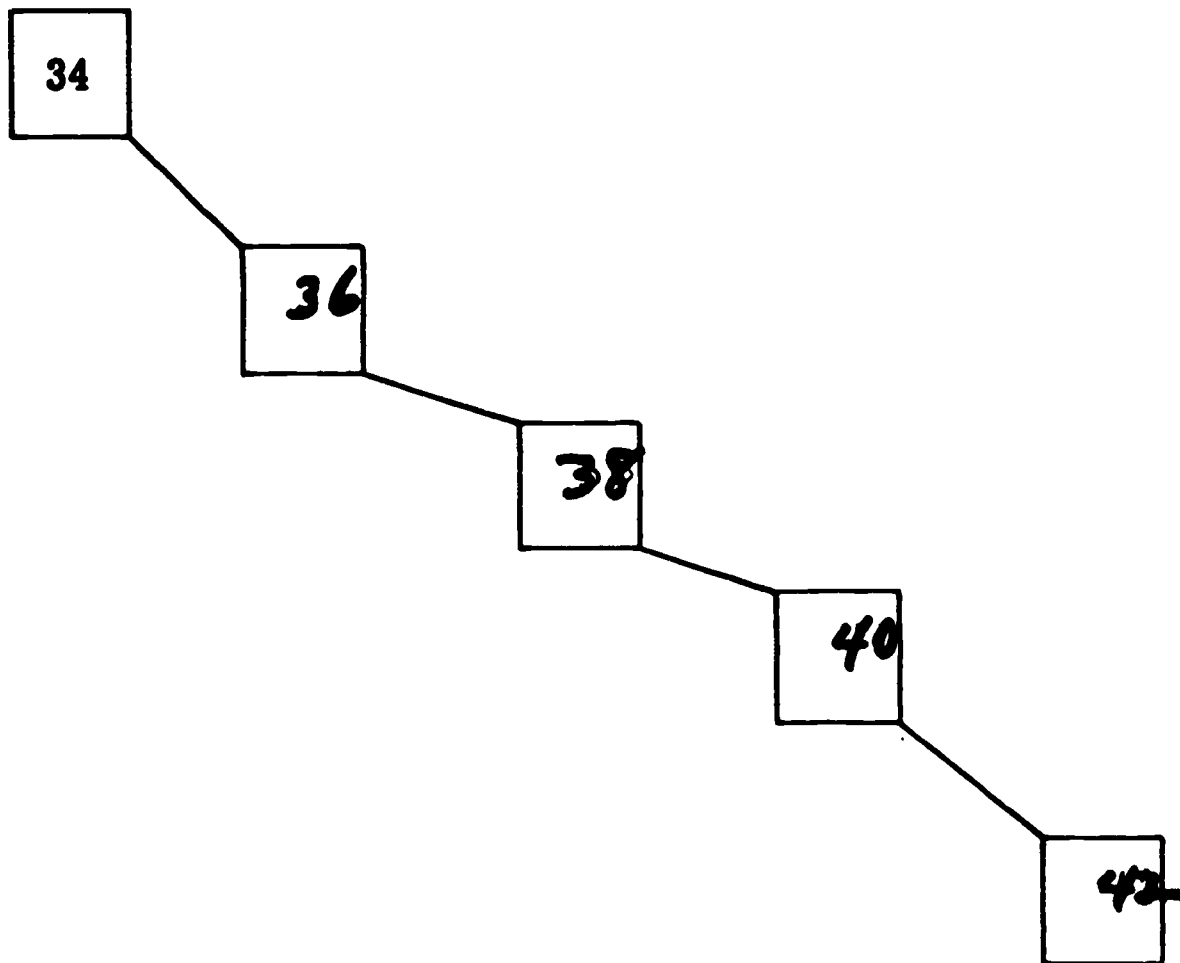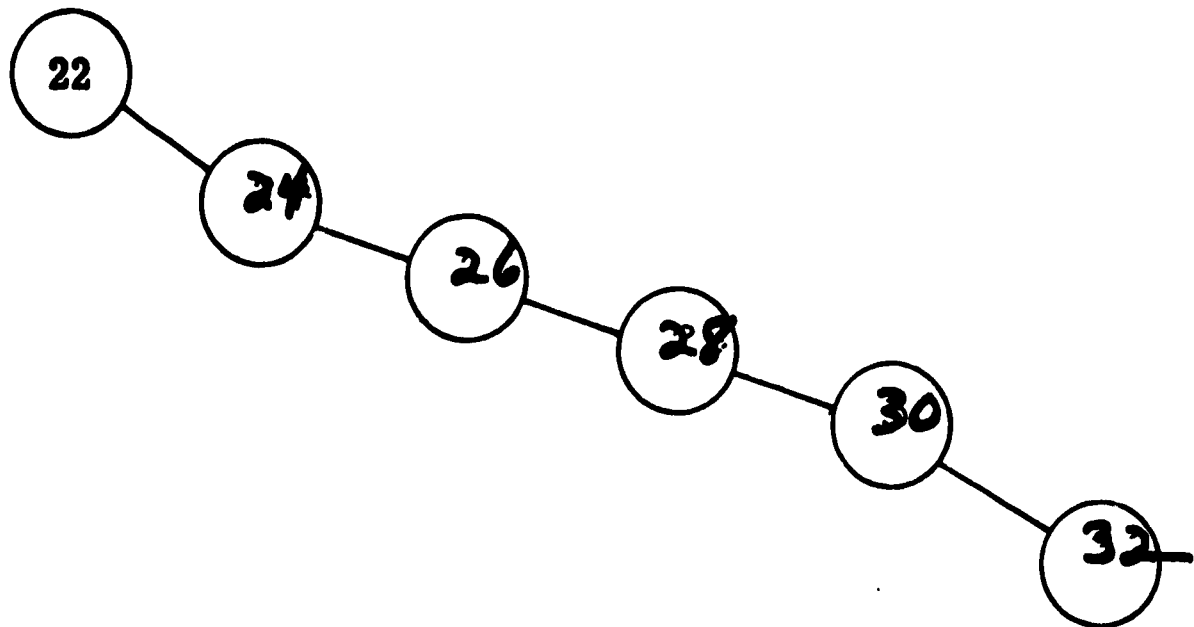
TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
E	01	2	2

Fill in the missing odd numbers.

1
3
5
7
9
11
13

15
17
19
21
23
25

27
29
31
33
35
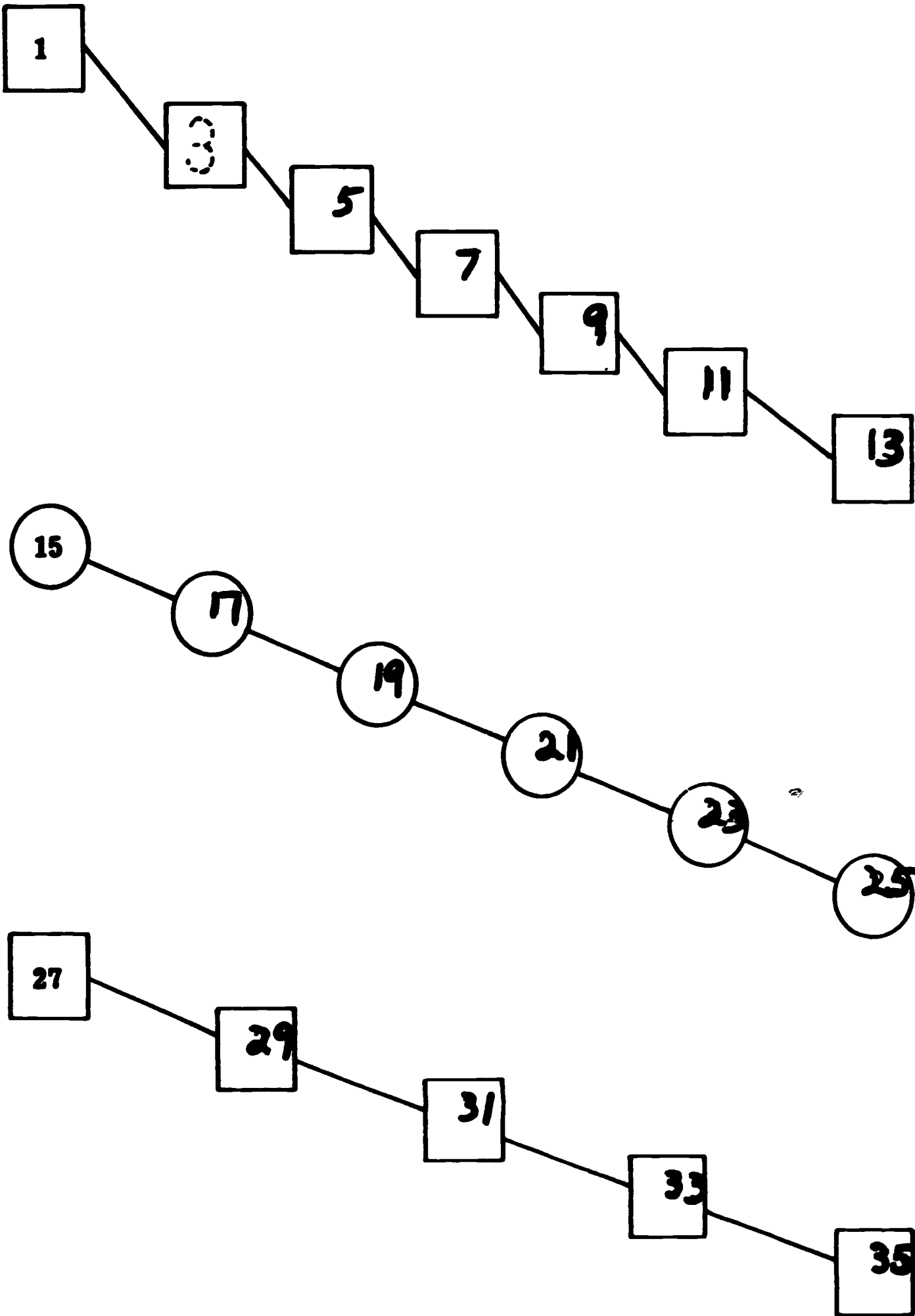
LEVEL	UNIT	SKILL	PAGE
E	01	2	3

(Circle) the odd numbers below.

48

(23)

(3)

(7)

(63)

98

(99)

32

(19)

(35)

14

(87)

40

(17)

Put a √ on each even number below.

35

16

24

43

92

100

52

41

56

66

44

19

27

For extra practice, do Page 23.

TOTAL POINTS	NUMBER CORRECT
27	

LEVEL	UNIT	SKILL	PAGE
E	01	2	4

194

Fill in the missing <u>even</u> numbers. Each row is a new problem.

<u>20</u> , <u>22</u>, <u>24</u>, <u>26</u> <u>28</u>

<u>60</u> , <u>62</u> <u>64</u>, <u>66</u>, <u>68</u>

<u>240</u> , <u>242</u> <u>244</u> <u>246</u> <u>248</u>

<u>554</u> , <u>556</u> <u>558</u> <u>560</u> <u>562</u>

Look at the numbers you have written. What 5 numerals always appear in the <u>ones</u> place?

<u>0</u> , <u>2</u>, <u>4</u>, <u>6</u>, <u>8</u>

The rule is that <u>even</u> numbers always end in <u>0</u> , or <u>2</u> or <u>4</u>, or <u>6</u>, or <u>8</u>.

TOTAL POINTS	NUMBER CORRECT
25	

LEVEL	UNIT	SKILL	PAGE
E	01	2	5

Fill in the missing <u>odd</u> numbers.

<u>21</u> , <u>23</u> , <u>25</u> , <u>27</u> , <u>29</u>

<u>81</u> , <u>83</u> , <u>85</u> , <u>87</u> , <u>89</u>

<u>231</u> , <u>233</u> , <u>235</u> , <u>237</u> , <u>239</u>

<u>455</u> , <u>457</u> , <u>459</u> , <u>461</u> , <u>463</u>

Look at the numbers you have written. What 5 numerals always appear in the <u>ones</u> place?

<u>1</u> , <u>3</u> , <u>5</u> , <u>7</u> , <u>9</u>

The rule is that <u>odd</u> numbers always end in <u>1</u> , or <u>3</u> , or <u>5</u> , or <u>7</u> , or <u> </u> .   No answer

For extra practic   do Page 24.

TOTAL POINTS	NUMBER CORRECT
26	

LEVEL	UNIT	SKILL	PAGE
E	01	2	6

Write even or odd in the blanks to describe the number.

3 is an odd number. 4 is an even number.

The sum of 3 + 4 is an _odd_ number.

2 is an _even_ number. 8 is an _even_ number.

The sum of 2 + 8 is an _even_ number.

9 is an _odd_ number. 3 is an _odd_ number.

The sum of 9 + 3 is an _even_ number.

6 is an _even_ number. 1 is an _odd_ number.

The sum of 6 + 1 is an _odd_ number.

7 is an _odd_ number. 11 is an _odd_ number.

The sum of 7 + 11 is an _even_ number.

20 is an _even_ number. 8 is an _even_ number.

The sum of 20 + 8 is an _even_ number.

TOTAL POINTS	NUMBER CORRECT
16	

LEVEL	UNIT	SKILL	PAGE
E	01	2	7

If you add an <u>odd</u> number to an <u>odd</u> number, you get an <u>even</u> number as the sum.

Fill in the spaces.

$7 + 5 = \underline{12}$

$11 + 11 = \underline{22}$

$9 + 3 = \underline{12}$

$41 + 7 = \underline{48}$

$23 + 55 = \underline{78}$

$71 + 31 = \underline{102}$

$3 + 5 = \underline{8}$

$65 + 7 = \underline{72}$

$401 + 69 = \underline{470}$

The sum of two odd numbers is an __even__ number.

TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
E	01	2	8

198

If you add an <u>even</u> number to an <u>even</u> number, you get an <u>even</u> number as the sum.

Finish these number sentences.

12 + 8 = <u>20</u>   40 + 10 = <u>50</u>

16 + 2 = <u>18</u>

2 + 4 = <u>6</u>   34 + 12 = <u>46</u>

22 + 88 = <u>110</u>

78 + 6 = <u>84</u>   94 + 2 = <u>96</u>

The sum of two even numbers is an <u>even</u> number.

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
E	01	2	9

If you add an <u>even</u> number to an <u>odd</u> number, the sum is an <u>odd</u> number.

$9 + 12 = \underline{21}$ $\qquad\qquad$ $11 + 8 = \underline{19}$

$31 + 4 = \underline{35}$

If you add an <u>odd</u> number to an <u>even</u> number, the sum is an <u>odd</u> number.

$30 + 1 = \underline{31}$ $\qquad\qquad$ $14 + 7 = \underline{21}$

$10 + 9 = \underline{19}$

For extra practice, do Page 25.

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
E	01	2	10

Write the correct word, <u>even</u> or <u>odd</u>, in each space.

7 is an _odd_ number. 3 is an _odd_ number.

7 − 3 is an _even_ number.

9 is an _odd_ number. 4 is an _even_ number.

9 − 4 is an _odd_ number.

10 is an _even_ number. 6 is an _even_ number.

10 − 6 is an _even_ number.

18 is an _even_ number. 7 is an _odd_ number.

18 − 7 is an _odd_ number.

12 is _even_ number. 2 is an _even_ number.

12 − 2 is an _even_ number.

15 is an _odd_ number. 5 is _odd_ number.

15 − 5 is an _even_ number.

TOTAL POINTS	NUMBER CORRECT
18	

LEVEL	UNIT	SKILL	PAGE
E	01	2	11

201

If you subtract an <u>odd</u> number from an <u>odd</u> number, your result is an <u>even</u> number.

Solve these problems.

$7 - 5 =$ _2_ $19 - 11 =$ _8_

$45 - 33 =$ _12_

$201 - 1 =$ _200_ $97 - 3 =$ _94_

$59 - 21 =$ _38_

The difference between two odd numbers is an _even_ number.

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
E	01	2	12

202

If you subtract an <u>even</u> number from an <u>even</u> number, the difference is an <u>even</u> number.

Find the differences.

$40 - 10 = \underline{30}$ $\qquad$ $12 - 8 = \underline{4}$

$16 - 2 = \underline{14}$

$88 - 44 = \underline{44}$ $\qquad$ $34 - 12 = \underline{22}$

$78 - 6 = \underline{72}$

The difference between two even numbers is an $\underline{even}$ number.

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
F	01	2	13

If you subtract an <u>even</u> number from an <u>odd</u> number, the difference is an <u>odd</u> number.

29 – 2 = _27_   15 – 8 = _7_

11 – 10 = _1_

If you subtract an <u>odd</u> number from an <u>even</u> number, the difference is an <u>odd</u> number.

12 – 9 = _3_   56 – 13 = _43_

72 – 3 = _49_

For extra practice, do Page 26.

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
E	01	2	14

Write <u>even</u> or <u>odd</u> in each space.

2 is an __even__ number. 4 is an __even__ number.

The product of 2 × 4 is an __even__ number.

3 is an __odd__ number. 5 is an __odd__ number.

The product of 3 × 5 is an __odd__ number.

7 is an __odd__ number. 1 is an __odd__ number.

The product of 7 × 1 is an __odd__ number.

6 is an __even__ number. 3 is an __odd__ number.

The product of 6 × 3 is an __even__ number.

5 is an __odd__ number. 4 is an __even__ number.

The product of 5 × 4 is an __even__ number.

10 is an __even__ number. 2 is an __even__ number.

The product of 10 × 2 is an __even__ number.

For extra practice, do Page 27.

TOTAL POINTS	NUMBER CORRECT
18	

LEVEL	UNIT	SKILL	PAGE
F	01	2	15

205

If you multiply an <u>odd</u> number by an <u>odd</u> number, your result is an <u>odd</u> number.

$3 \times 7 =$ __21__ $5 \times 3 =$ __15__

$11 \times 1 =$ __11__

$3 \times 9 =$ __27__ $7 \times 5 =$ __35__

$5 \times 9 =$ __45__

The product of two odd numbers is an __odd__ number.

TOTAL POINTS	NUMBER CORRECT			LEVEL	UNIT	SKILL	PAGE
7				E	01	2	16

If you multiply an <u>even</u> number by an <u>even</u> number, your result is an <u>even</u> number.

$$4 \times 8 = \underline{32} \qquad\qquad 6 \times 2 = \underline{12}$$

$$4 \times 2 = \underline{8}$$

$$4 \times 4 = \underline{16} \qquad\qquad 4 \times 6 = \underline{24}$$

$$2 \times 2 = \underline{4}$$

The product of two even numbers is an __even__ number.

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
E	01	2	17

If you multiply an <u>odd</u> number and an <u>even</u> number, your result is an <u>even</u> number.

$$3 \times 12 = \underline{36} \qquad\qquad 5 \times 2 = \underline{10}$$

$$3 \times 6 = \underline{18}$$

If you multiply an <u>even</u> number by an <u>odd</u> number, your result is an <u>even</u> number.

$$10 \times 5 = \underline{50} \qquad\qquad 8 \times 3 = \underline{24}$$

$$10 \times 3 = \underline{30}$$

For extra practice, do Page 28.

TO... PO	...MBE...			LEVEL	UNIT	SKILL	PAGE
6				E	01	2	

Make these statements true by writing odd or even in the spaces.

E = even number
O = odd number

E + E means the sum of 2 even numbers.

E + O means the sum of an _even_ number and an _odd_ number.

O + O means the sum of 2 _odd_ numbers.

E × E means the product of 2 _even_ numbers.

E − O means an _odd_ number subtracted from an _even_ number.

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
E	01	2	19

Write E or O in the spaces to complete these equations.

E means an even number.

O means an odd number.

$$E + E = \underline{E}$$

$$E + O = \underline{O}$$

$$O + O = \underline{E}$$

$$E - E = \underline{E}$$

$$E - O = \underline{O}$$

$$O - O = \underline{E}$$

$$E \times E = \underline{E}$$

$$E \times O = \underline{E}$$

$$O \times O = \underline{O}$$

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
E	01	2	20

Fill in the spaces with **E** or **O**.

> **E** means an even number.
>
> **O** means an odd number.

$$(E + E) + E = \underline{E}$$

$$(E + O) + O = \underline{E}$$

$$(E \times O) \times E = \underline{E}$$

$$(O \times O) \times E = \underline{E}$$

$$(E - O) - E = \underline{O}$$

$$E - E = \underline{E}$$

$$(O - E) - O = \underline{E}$$

$$(E \times E) \times O = \underline{E}$$

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	2	21

CET I

Write <u>O</u> for odd or <u>E</u> for even to show what the answer will be.

$O + E =$ _____ $O - O =$ _____

$O + O =$ _____ $E \times O =$ _____

Draw lines to match the examples with the rules.

$2 \times 2 = 4$ $E - O = O$

$5 - 2 = 3$ $O \times O = O$

$6 + 2 = 8$ $E \times E = E$

$8 - 3 = 5$ $O - E = O$

$3 \times 5 = 15$ $E + E = E$

(Circle) the best estimated answer.

There were 118 girls and 21 boys on the playground.

About how many boys and girls were on the playground?

100   120   140

Tom sold 158 tickets for the game one day, and 119 the

next day. About how many tickets did he sell?

320   290   260

LEVEL	UNIT	SKILL	PAGE
E	01	2	22

Start at <u>zero</u> and count by twos.

0,   <u>2</u>,   <u>4</u>,   <u>6</u>,   <u>8</u>,

<u>10</u>,   <u>12</u>,   <u>14</u>,   <u>16</u>,   <u>18</u>

How many <u>even</u> numbers are in the table? <u>10</u>

How many <u>odd</u> numbers are in the table? <u>0</u>

Start at <u>1</u> and count by twos.

1,   <u>3</u>,   <u>5</u>,   <u>7</u>,   <u>9</u>,

<u>11</u>,   <u>13</u>,   <u>15</u>,   <u>17</u>,   <u>19</u>

How many <u>even</u> numbers are in the table? <u>0</u>

How many <u>odd</u> numbers are in the table? <u>10</u>

TOTAL POINTS	NUMBER CORRECT
22	

LEVEL	UNIT	SKILL	PAGE
E	01	2	23

Put an **X** on the <u>odd</u> numbers on these number lines.
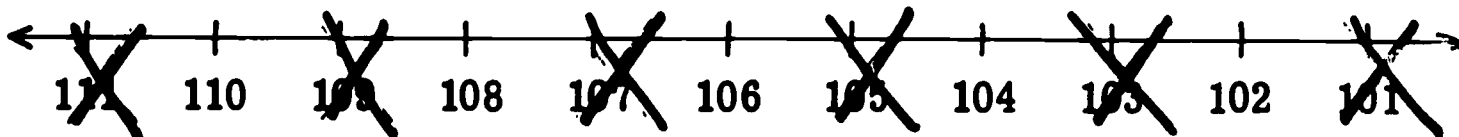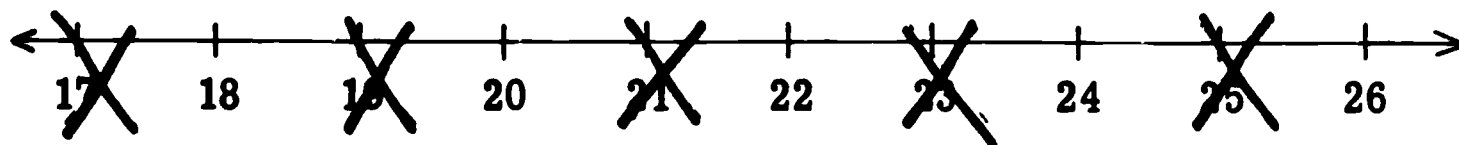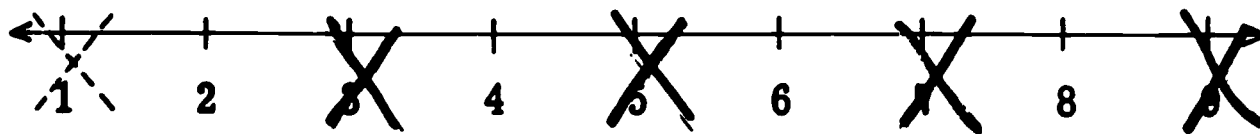
In the first line, look at each numeral you put an X on. Now look at the other numerals you put X's on.

What do you notice about odd numbers?

The answer: All odd numbers end in the digits _1_, _3_, _5_, _7_, or _9_.

TOTAL POINTS	NUMBER CORRECT
35	

LEVEL	UNIT	SKILL	PAGE
E	01	2	24

(Circle) odd or even to describe the numeral below.

Odd   Odd   Odd

Even   Even   (Even)

$$3 \quad + \quad 5 \quad = \quad 8$$

| Rule | An <u>odd</u> number plus an <u>odd</u> number is an <u>even</u> number.

Odd   Odd   Odd

(Even)   (Even)   (Even)

$$4 \quad + \quad 6 \quad = \quad 10$$

| Rule | An <u>even</u> number plus an <u>even</u> number is an <u>even</u> number.

(Odd)   Odd   (Odd)

Even   (Even)   Even

$$7 \quad + \quad 2 \quad = \quad 9$$

| Rule | An <u>odd</u> number plus an <u>even</u> number is an <u>odd</u> number.

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
E	01	2	25

215

(Circle) odd or even to describe the numeral below.

(Odd)   (Odd)   Odd

Even   Even   (Even)

↓   ↓   ↓
7 — 3 = 4

Rule An odd number minus an odd number is an even number.

Odd   Odd   Odd

(Even)   (Even)   (Even)

↓   ↓   ↓
8 — 2 = 6

Rule An even number minus an even number is an even number.

(Odd)   Odd   (Odd)

Even   (Even)   Even

↓   ↓   ↓
5 — 4 = 1

Rule An odd number minus an even number is an odd number.

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
E	01	2	26

216

Any number which is a <u>product</u> of <u>2</u> and another number is an <u>even</u> number.

Complete these equations.

$0 = 2 \times 0$ $\underline{8} = 2 \times 4$

$2 = 2 \times \underline{1}$ $10 = 2 \times \underline{5}$

$4 = 2 \times \underline{2}$ $12 = 2 \times \underline{6}$

$\underline{6} = 2 \times 3$ $\underline{14} = 2 \times 7$

The <u>sum</u> of any addition equation with the <u>same</u> two numbers as addends is

an <u>even</u> number.

Complete these equations.

$4 = 2 + 2$ $10 = 5 + \underline{5}$

$6 = 3 + 3$ $12 = \underline{6} + 6$

$\underline{8} = 4 + 4$ $\underline{14} = 7 + 7$

TOTAL POINTS	NUMBER CORRECT
11	

LEVEL	UNIT	SKILL	PAGE
E	01	2	27

Circle the correct word, odd or even, to describe the numeral below.

Odd   Odd   Odd
Even   Even   Even
↓   ↓   ↓
5   ×   3   =   15

Rule An odd number times an odd number is an odd number.

Odd   Odd   Odd
Even   Even   Even
↓   ↓   ↓
4   ×   6   =   24

Rule An even number times an even number is an even number.

Odd   Odd   Odd
Even   Even   Even
↓   ↓   ↓
9   ×   6   =   54

Rule An odd number times an even number is an even number.

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
E	01	2	28

218

CET II

Write <u>O</u> for odd or <u>E</u> for even to show what the answer will be.

$E - E =$ ___

$O \times O =$ ___

$E + O =$ ___

$O + O =$ ___

C	TL. PTS.	
I	9	100%
R	NO. OF PTS.	%
C	8	89
L	7	78
E	6	67
	5	56
C	4	44
O	3	33
R	2	22
R	1	11
E		
C		
T		
B		
O		
X		

Draw lines to match the examples with the rules.

$2 \times 7 = 14$ $O - O = E$

$4 \times 2 = 8$ $O + E = O$

$9 + 4 = 13$ $E - O = O$

$10 - 3 = 7$ $E \times O = E$

$5 - 3 = 2$ $E \times E = E$

(Circle) the best estimated answer.

Dick had 178 pennies in his penny collection. Uncle Joe gave

him 31 more. About how many did he have then?

210   240   190

Sally sold 31 bags of pretzels one day and 23 bags of pretzels

another day. About how many bags of pretzels did she sell?

58   52   55

C	TL. PTS.	
I	2	100%
R	NO. OF PTS.	:
C	1	50
L		
E		
C		
O		
R		
R		
E		
C		
T		
B		
O		
X		

LEVEL	UNIT	SKILL	PAGE
E	01	2	29

LEVEL E, NUMERATION, SKILL 2

OBJECTIVE: Identifies odd and even numbers and states rules for adding, subtracting, and multiplying two numbers; e.g., E + E = E. Selects the rule when a numerical example is given and vice versa.

STANDARD TEACHING SEQUENCE

Pages	Supplementary Material
1. Skip-counts by twos, using a number line; is introduced to even and odd numbers.	
2. Fills in numerals for even numbers in short sequences.	
3. Fills in numerals for odd numbers in short sequences.	
4. Circles numerals for odd numbers, puts X's on numerals for even numbers.	23
5. Fills in numerals for even numbers and writes endings for even numbers.	
6. Fills in numerals for odd numbers and writes endings for odd numbers.	24
7. Writes 'even' or 'odd' to describe the addends and sums in additional problems.	
8. Completes examples and rule for addition of two odd numbers.	
9. Completes examples and rule for addition of two even numbers.	
10. Completes examples and rule for addition of even and odd numbers.	25
11. Writes 'even' or 'odd' for addends and sums for subtraction problems.	
12. Completes examples and rule for subtraction of two odd numbers.	
13. Completes examples and rule for subtraction of two even numbers.	
14. Completes examples and rule for subtraction of even and odd numbers.	26
15. Writes 'even' or 'odd' for factors and products in multiplication problems.	27
16. Completes examples and rule for multiplication of two odd numbers.	
17. Completes examples and rule for multiplication of two even numbers.	
18. Completes examples and rule for multiplication of even and odd numbers.	28
19. Completes statements using E and O by writing even or odd: adding, subtracting, and multiplying.	
20. Completes statements using E and O by supplying these symbols for even and odd.	
21. Completes statements using E and O by supplying these symbols for even and odd.	
22. CET I. CET II.	29

Circle pages that are to be done.

Standard Teaching Sequence, Con't.

1967-68

Textbook Resources:

Book	Teaching Pages	Practice Pages
Harcourt, Brace & World, 1966 <u>Elementary</u> <u>Mathematics</u> - 5		12

IPI

...and digitally prescribed instruction

MATHEMATICS

Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL E

NUMERATION (01)

SKILL 3

DEVELOPMENTAL EDITION

TO THE STUDENT

Write in the missing numerals.

107,998, _____, _____, _____,

_____, _____, _____, 108,005.

When a word problem must be solved very rapidly, _estimate_, or approximate, the answer, by _rounding_ the numbers to the nearest ten or hundred. Here is an example.

Stephen sold 289 tickets for the picnic one day, and 156 tickets the next day. About how many tickets did he sell?

(Estimate to tens.)

_____

This booklet will show you how to solve problems by estimating.

Answers

107,999, 108,000, 108,001,
108,002, 108,003, 108,004
450 tickets

These are <u>multiples</u> of <u>10</u>.

6×10 $\qquad\qquad\qquad\qquad\qquad$ 3×10

$\qquad\qquad$ $4 \times 10 = 40$ $\qquad\qquad\qquad$ 7×10

Circle the <u>multiples</u> <u>of</u> <u>ten</u> which appear below.

3×9 $\qquad\qquad\qquad\qquad\qquad$ (10×6)

$\qquad\qquad$ (4×10) $\qquad\qquad\qquad$ $(8 \times 10 = 80)$

9×8 $\qquad\qquad\qquad\qquad\qquad$ 7×6

$\qquad\qquad$ (8×10) $\qquad\qquad\qquad$ (12×10)

(70) $\qquad\qquad\qquad\qquad$ $(3 \times 10 = 30)$

$\qquad\qquad$ (50) $\qquad\qquad\qquad\qquad$ 5×8

(10×6) $\qquad\qquad\qquad\qquad$ (20)

TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
E	01	3	1

A <u>multiple of ten</u> is the product of two numerals, such that one numeral

is 10.

Circle the <u>multiples of ten</u> below.

(60)   8 × 10

32   70

6 × 8   9 × 10

10 × 1   81

50   5 × 9

10 × 7   3 × 10

11 × 6   30

8 × 2   21

TOTAL POINTS	NUMBER CORRECT
16	

LEVEL	UNIT	SKILL	PAGE
E	01	3	2

225

12 is between 10 and ____ (what other multiple of 10?)

12 is nearer to ____ (10 or 20?)

A number is <u>rounded to the nearest ten</u> by finding the multiple of ten

nearest to that number.

Write the multiple of ten nearest to the given numeral.

12 _10_   41 _40_

23 _20_   13 _10_

39 _40_   22 _20_

18 _20_   34 _30_

26 _30_   17 _20_

Remember that if a numeral ends in five, it should always be rounded to

the <u>greater</u> multiple of ten.

Round each of the following to the nearest ten.

45 _50_   5 _10_

75 _80_   85 _90_

15 _20_   95 _100_

For extra practice, do Page 14.

TOTAL POINTS	NUMBER CORRECT
18	

LEVEL	UNIT	SKILL	PAGE
E	01	3	3

Round each of the following to the nearest ten.

77 _80_ 25 _30_

25 _30_ 3 _0_

49 _50_ 101 _100_

188 _190_ 1,165 _1,170_

155 _160_ 7 _10_

10,572 _10,570_ 99 _100_

16 _20_ 13,395 _13,400_

For extra practice, do Page 15.

TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
E	01	3	4

These are <u>multiples of 100</u>.

3 × 100 = 300   42 × 100

                600   100 × 73

38 × 100   500

Circle the <u>multiples of 100</u> below.

(6 × 100)   (100)

        (75 × 200)   (700)

(43 × 100)   (100 × 8)

        8 × 10   250

92 × 320   (161 × 100)

        (1,000 × 10)   (4 × 100)

(300)   350 × 1

TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
E	01	3	5

A <u>multiple of 100</u> is the product of two numerals such that one numeral

is 100.

.

Circle the <u>multiples of 100</u> below.

(100×2) 33×99

(300) (6×100)

(110×100) 10×3

(52×100) (600)

(100×11) 17×101

850 (1800)

(100×785) 101×162

420 (8×100)

TOTAL POINTS	NUMBER CORRECT
16	

LEVEL	UNIT	SKILL	PAGE
E	01	3	6

229

Round off to nearest 100.

145 is between 100 and ____ (what multiple of 100?)

145 is nearer to ____ (100 or 200?)

Write the multiple of 100 nearest to the given numeral.

75 *100*   238 *200*

109 *100*   380 *400*

43 *0*   257 *300*

222 *200*   155 *200*

315 *300*   280 *300*

760 *400*   804 *800*

You <u>round</u> to the nearest 100 when you find the <u>multiple of 100</u> nearest to

a certain whole number.

Remember that if a numeral ends in fifty, you should always round to the

<u>greater</u> multiple of one hundred.

Round each of the following to the nearest multiple of 100.

150 *200*   350 *400*   650 *700*

750 *800*   250 *300*   950 *1000*

For more practic do Page 16.

TOTAL POINTS	NUMBER CORRECT
19	

LEVEL	UNIT	SKILL	PAGE
E	01	3	7

Practice rounding each of the following to the nearest 100.

85 _100_

999 _1000_

157 _200_

17,182 _17,200_

233 _200_

49 _0_

77,717 _77,700_

873 _900_

723 _700_

1,256 _1,300_

1,389 _1,400_

126 _100_

350 _400_

9,950 _10,000_

15,006 _15,000_

666 _700_

TOTAL POINTS	NUMBER CORRECT
16	

LEVEL	UNIT	SKILL	PAGE
E	01	3	8

231

Sometimes when you work a problem you try to find a numeral which is close to the answer. When you do this, you have found an <u>estimate</u>.

Find the estimate of the following problems. First round each numeral to the nearest ten. Then add or subtract. Finally, find <u>the exact answer</u>.

	Estimate	Exact
72 + 86 =	<u>70</u> + <u>90</u> = <u>160</u>	<u>158</u>
147 − 22 =	$150-$ _____ $= 130$	125
395 − 254 =	_____ − 250 = 150	141
38 + 83 =	_____ + _____ = 120	121
629 + 43 =	_____ + 40 = 670	677
97 − 19 =	100 − 70 = 80	78
763 − 473 =	770 − 470 = 300	293
925 + 4 =	930 + 0 = 930	929
99 − 16 =	100 − 20 = 80	83

For extra practice, do Page 17.

TOTAL POINTS	NUMBER CORRECT
32	

LEVEL	UNIT	SKILL	PAGE
E	01	3	10

233

See if you can use estimates to solve some word problems.

For each problem, estimate the answer by rounding to the nearest ten. Then find the exact answer.

Tom sold 76 newspapers on Monday and 53 on Tuesday. How many newspapers did he sell on the two days?

Exact	Estimate
_129_	(80 + 50 = 130) _90_

Harry had 44 cars. Billy had 55. How many cars did they have together?

Exact	Estimate
_99_	(40 + 60) = _100_

Joe had 63 bugs in his collection. Frank had 86 in his. How many _more_ bugs did Frank have?

Exact	Estimate
_23_	(90 - 60) = _30_

(Did you remember to subtract?)

Sally had 34 dolls. Sue had 19. How many _more_ dolls did Sally have?

Exact	Estimate
_15_	(30 - 20) = _10_

For extra practice, to Page 18.

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	3	11

Here are some more word problems. Solve them. First estimate the

answer by rounding to the nearest <u>hundred</u>. Then find the exact answer.

Jim had 239 bees in his collection. John had 252 bees in his

collection. Together, how many bees did the two boys have?

Estimate	Exact
500	491

There are 24,563 people living in New Kensington. There are

26,833 people living in Greensburg. How many <u>more</u> people are

living in Greensburg than in New Kensington? (Do you add or

subtract?)

Estimate	Exact

Mr. Smith bought a color television for $657. Mrs. Smith bought

a clothes dryer for $328. How much money did Mr. and Mrs.

Smith spend on the television and the dryer?

Estimate	Exact

For more practice, do Page 19.

TOTAL POINTS	NUMBER CORRECT		LEVEL	UNIT	SKILL	PAGE
6			E	01	3	12

CET I

Write the correct answer in each blank.

C I R C L E	TL. PTS.	
	6	100%
	NO. OF PTS.	%
C O R R E C T	5	83
	4	67
	3	50
	2	33
B O X	1	17

Is 40 nearer to 38 or 45? ____

Is 71 nearer to 70 or 75? ____

Is 7 nearer to 10 or 0? ____

Is 833 nearer to 830 or 840? ____

Circle the best estimated answer.

Sue sold 319 bags of potato chips one day and 208 bags

the next day. About how many more bags of potato chips

were sold on the first day than on the next day?

500   85   110

Tom sold 127 tickets for the picnic in one day and 178

the next day. About how many tickets did he sell?

50   240   310

Write the numerals for these number words.

C I R C L E	TL. PTS.	
	2	100%
	NO. OF PTS.	%
C O R R E C T	1	50
B O X		

Eight hundred sixteen _____

Nineteen thousand sixty-three _____

LEVEL	UNIT	SKILL	PAGE
E	01	3	13

Answer the following questions.

13 is nearer to _/0_ (10 or 20?)

36 is nearer to _40_ (30 or 40?)

28 is nearer to _30_ (20 or 30?)

16 is nearer to _20_ (10 or 20?)

43 is nearer to _40_ (40 or 50?)

2 is nearer to _0_ (0 or 10?)

22 is nearer to _20_ (20 or 30?)

17 is nearer to _20_ (10 or 20?)

8 is nearer to _10_ (0 or 10?)

39 is nearer to _40_ (30 or 40?)

23 is nearer to _20_ (20 or 30?)

4 is nearer to _0_ (0 or 10?)

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	3	14

Answer the following questions. Use the number line for help.

50	60	70	80	90	100

50	60	70	80	90	100
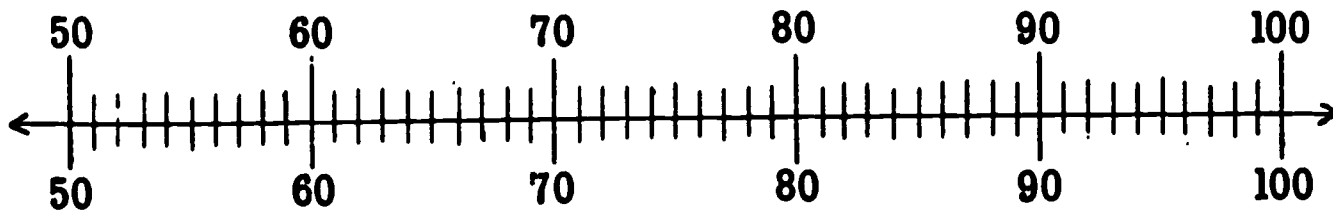
64 is about __60__ (60 or 70?)

38 is about __40__ (30 or 40?)

74 is about __70__ (70 or 80?)

59 is about __60__ (50 or 60?)

97 is about __100__ (90 or 100?)

65 is about __70__ (60 or 70?)

82 is about __80__ (80 or 90?)

Write the multiple of ten nearest to the following numerals.

87   __90__

73   __70__

95   __100__

66   __70__

82   __80__

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	3	15

Round each of the following numerals to the nearest <u>ten</u>.

29	_30_
144	_140_
31	_30_
7,885	_7,890_
333	_330_
25,756	_25,760_
1,285	_1,290_

Round each of the following numerals to the nearest <u>hundred</u>.

750	_800_
895	_900_
1,026	_1,000_
57,962	_58,000_
19	_0_
68	_100_
82,550	_82,600_

TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
E	01	3	16

239

Round each addend to the nearest multiple of ten. Estimate the sum by adding the multiples of ten. Then find the exact sum.

	Estimate	Exact
12 + 19	30	31
62 + 31	90	93
57 + 42	100	99
77 + 52	130	129
35 + 24	60	59
45 + 15	70	60

You can mark the numerals on the number line below if you need help finding the nearest multiple of ten.
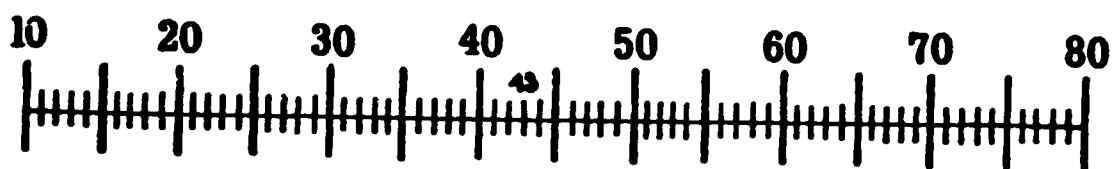
TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
E	01	3	17

240

Solve the following word problems. First estimate the answer by rounding to the nearest <u>ten.</u> Then find the exact answer.

Jane collected 55 seashells and Jill collected 101. How many seashells did they collect together?

Estimate   Exact

_160_   _156_

A gray truck carried 377 pounds of dirt. A red truck carried 263 pounds. How many pounds did they carry together?

Estimate   Exact

_640_   _640_

Ann saw 85 clowns. Nancy saw 52. How many <u>more</u> clowns did Ann see?

Estimate   Exact

_____   _33_

Mary made 93 cookies. Alice made 112. How many <u>more</u> cookies did Alice make?

Estimate   Exact

_____   _____

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	3	18

Solve the following word problems. First estimate the answer by rounding to the nearest hundred. Then find the exact answer.

On Monday 19,767 people attended the baseball game. On Tuesday 21,329 people attended. How many people attended on the two days?

Estimate   Exact

41,00   *41,096*

Mr. Jones used 972 stones to build his wall. Mr. Smith used 644 to build his. How many more stones did Mr. Jones use?

Estimate   Exact

400   *328*

Farmer Brown had 550 head of cattle. Farmer Johnson had 1,395 head of cattle. How many more head of cattle did Farmer Johnson have?

Estimate   Exact

800   *845*

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
E	01	3	19

CET II

Round each number to the nearest ten.

32 _____   68 _____

Round each number to the nearest hundred.

793 _____   441 _____

Circle the best estimated answer.

Terry has 432 stamps in his stamp collection. He will

buy 158 more. How many will he have then?

300   500   600

Mr. Benson sold 529 hot dogs on Tuesday at the game.

On Wednesday he sold 750. How many more did he sell

on Wednesday?

500   220   110

Write the numerals for these number words.

Seven hundred twenty-six _____

One thousand nine hundred sixty-eight _____

LEVEL	UNIT	SKILL	PAGE
E	01	3	20

LEVEL E, NUMERATION, SKILL 3

OBJECTIVE: Rounds numbers to tens and hundreds for comparison and for estimating answers in simple word problems.

STANDARD TEACHING SEQUENCE

Page		Supplementary Material
1.	Selects multiples of ten.	
2.	Selects multiples of ten.	
3.	Rounds numerals to nearest ten. Numerals under 100, including numerals ending in .5.	14
4.	Rounds numerals to nearest ten. Numerals under 20,000, some ending in 5.	15
5.	Selects multiples of 100, working from examples.	
6.	Selects multiples of 100, working from definition.	
7.	Rounds numerals to nearest 100. Numerals to 1,000, some ending in 50.	16
8.	Rounds numerals to nearest 100. Numerals under 20,000, some ending in 50.	
9.	Rounds numerals to nearest ten and then to nearest 100 under 100,000.	
10.	Rounds numerals to nearest ten to estimate result of addition or subtraction then finds exact answer.	17
11.	Estimates answers to word problems by rounding numbers to nearest ten before adding or subtracting. Then finds exact answer.	18
12.	Estimates answers to word problems by rounding numbers to nearest 100 before adding or subtracting. Then finds exact answer.	19
13.	CET I.	
	CET II.	20

Circle pages that a' ? to be done.

E-Num-3

Standard Teaching Sequence, Con't.

1967-68

Sequence No.   Prescription No.

21R   Rounds a list of given numbers to the
                                 nearest multiple of ten. Uses a number
                                 line to 30 to help find answers.

22R   Estimates answers to problems by first
                                 rounding given numbers to the nearest
                                 multiple of ten, then adding the
                                 rounded numbers to find the total.
                                 Story situation presented.

Textbook Resources:

Book	Teaching Pages	Practice Pages
Harcourt, Brace & World, 1966 Elementary Mathematics - 3	152	126
Harcourt, Brace & World, 1966 Elementary Mathematics - 4	36	254
Harcourt, Brace & World, 1966 Elementary Mathematics - 5		14, 15 (prob 1-6)

SCHOOL CODE

NAME _____

NUMBER _____ CLASS _____ _____

MATHEMATICS

Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL E

NUMERATION (01)

SKILL 4

Appleton-Century-Crofts (ACC) Division of Meredith Publishing Company

DEVELOPMENTAL EDITION

TO THE STUDENT

Write the numerals for these number words.

Fourteen _____

Seven thousand one hundred twenty-eight _____

Write the number words for these numerals.

807 _____

9,047 _____

4,500 _____

68 _____

Answers

14
7,128
eight hundred seven
nine thousand forty-seven
four thousand five hundred
sixty-eight

Write the missing numerals or number words.

_0_	zero	17	seventeen
1	one	_18_	eighteen
2	two	19	nineteen
3	three	_20_	twenty
4	four	21	twenty-one
5	five	_22_	twenty-two
6	six	23	twenty-three
7	seven	24	twenty-four
8	eight	_25_	twenty-five
9	nine	26	twenty-six
10	ten	_27_	twenty-seven
_11_	eleven	_28_	twenty-eight
_12_	twelve	29	twenty-nine
_13_	thirteen	_30_	thirty
14	fourteen	31	thirty-one
_15_	fifteen	_32_	thirty-two
16	sixteen	33	thirty-three

TOTAL POINTS	NUMBER CORRECT
37	

LEVEL	UNIT	SKILL	PAGE
E	01	4	1

Write the missing numerals or number words.

38	thirty-_eight_	57	_____
39	_____	58	fifty-_____
40	forty	59	_____
41	_____-one	___	sixty
42	_____	61	_____-one
43	forty-three	62	sixty-_____
44	_____	63	_____
45	forty-five	___	sixty-four
46	_____	65	_____ five
47	_____	66	_____
48	_____-eight	67	_____
49	_____	___	sixty-_____
___	fifty	69	_____
___	_____-one	70	_____
52	fifty-_____	___	seventy-one
53	_____	___	_____-two
___	fifty-four	___	seventy-three
55	_____	74	_____
___	_____-six		

TOTAL POINTS	NUMBER CORRECT
40	

LEVEL	UNIT	SKILL	PAGE
E	01	4	2

Write in the missing numerals and number words.

___	seventy-five	89	_____-nine
76	_____-six	___	ninety
77	_____	91	_____-one
___	seventy-eight	92	_____
79	_____	93	_____-three
30	eighty	___	ninety-four
81	_____-one	95	_____
82	_____	96	ninety-_____
___	eighty-three	97	_____
84	_____	___	ninety-_____
___	_____-five	99	_____
86	_____	___	one hundred
___	eighty-seven	101	one _____ one
88	_____	102	one _____

What comes after eighty six? _____

What comes before ninety-one? _____

What comes after ninety-nine? _____

Write the numeral for each number word.

thirteen _13_ ninety-one ___

thirty-three ___ ninety-two ___

thirty-one _31_ ninety-three ___

thirty _30_ thirty-nine ___

Write the number words for these numerals.

6 _six_

60 _sixty_

66 _sixty - six_

33 _thirty - three_

34 _thirty - four_

35 _thirty - five_

53 _fifty - three_

15 _fifteen_

TOTAL POINTS	NUMBER CORRECT
16	

LEVEL	UNIT	SKILL	PAGE
E	01	4	4

Write in the missing numerals and number words.

100	one _hundred_	(1 pt.)
101	one hundred _one_	(1 pt.)
102	_one_ hundred _two_	(1 pt.)
_103_	one hundred three	(1 pt.)
104	_one_ hundred _four_	(1 pt.)
105	one _hundred_ _five_	(1 pt.)
106	_one_ _hundred_ _six_	(1 pt.)
107	_one_ _hundred_ _seven_	(1 pt.)
_108_	one hundred eight	(1 pt.)
109	_one_ _hundred_ _nine_	(1 pt.)
_110_	one hundred ten	(1 pt.)
111	one hundred _eleven_	(1 pt.)
_112_	_one_ _hundred_ twelve	(1 pt.)
_113_	one hundred thirteen	(1 pt.)
114	one hundred _fourteen_	(1 pt.)
115	_one_ _hundred_ _fifteen_	(1 pt.)
_116_	one hundred _sixteen_	(1 pt.)
_117_	one hundred seventeen	(1 pt.)

TOTAL POINTS	NUMBER CORRECT
18	

LEVEL	UNIT	SKILL	PAGE
E	01	4	5

Write the missing numerals and number words.

150   one _____ fifty

151   ___ _____ _____

___   one hundred fifty-two

153   ___ _____ _____

154   one _____ _____

155   ___ _____ _____

___   one hundred fifty-six

___   one hundred fifty-seven

158   ___ _____ _____

159   ___ _____ _____

160   one hundred _____

---

250   two hundred fifty

251   two _____ _____

252   ___ _____ _____

253   two hundred fifty-three

254   ___ _____ _____

255   two hundred fifty-five

TOTAL POINTS	NUMBER CORRECT
17	

LEVEL	UNIT	SKILL	PAGE
E	01	4	6

Write the missing numerals or number words.

___	two hundred ninety-five	(1 pt.)
296	two hundred ninety-___	(1 pt.)
297	two hundred ninety-seven	(1 pt.)
298	two hundred ninety-eight	(1 pt.)
299	two hundred ninety-nine	(1 pt.)
300	three hundred	(1 pt.)
301	three hundred one	. . .
302	three hundred two	(1 pt.)
303	three hundred three	(1 pt.)
304	three hundred ___ .	. . .

403	four hundred ___ .	. . .
503	five hundred ___	. . .
603	six hundred three	. . .
700	seven ___	. .
900	nine hundred	. . .
1,000	one thousand	. . .

Write the number words for these numerals.

100	one hundred	(1 pt.)
101	one hundred one.	(1 pt.)
102	one hundred two	(1 pt.)
120	one hundred twenty	(1 pt.)
121	one hundred twenty - one	(1 pt.)
131	one hundred thirty - one	(1 pt.)
231	two hundred thirty - one	(1 pt.)

Write the numerals for these number words.

768	seven hundred sixty-eight
409	four hundred nine
235	two hundred thirty-five
935	nine hundred thirty-five
918	nine hundred eighteen
981	nine hundred eighty-one
801	eight hundred one

For extra practice, do Page 18.

TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
E	01	4	8

ERIC

9.

Write the missing numerals and number words.

997	___ _____ _____
_____	nine hundred ninety eight
999	___ _____ _____
1,000	___ ___ thousand
1,001	one _____ _____
1,002	___ thousand ___
_____	one thousand three
1,004	___ _____ ___
1,015	one thousand _____
1,016	___ thousand sixteen
1,017	___ thousand _____ ___
_____	one thousand eighteen
1,019	one thousand nineteen
1,020	one thousand _____
1,021	one thousand twenty ___

Write the missing numerals and number words.

1,097	one thousand <u>ninety-seven</u>	(1 pt)
1,098	<u>one thousand ninety-eight</u>	(1 pt.)
1,099	one thousand ninety-nine	(1 pt.)
1,100	one thousand one hundred	
1,101	one thousand one hundred <u>one</u>	(1 pt.)
1,102	<u>one thousand one hundred two</u>	(1 pt)
<u>1,103</u>	one thousand one hundred three	(1 pt.)
1,104	<u>one thousand one hundred four</u>	(1 pt)
1,105	<u>one thousand one hundred five</u>	(1 pt.)
1,125	one thousand one hundred <u>twenty-five</u>	(1 pt)
1,126	<u>one thousand one hundred twenty-six</u>	(1 pt)
<u>1,127</u>	one thousand one hundred twenty-seven	(1 pt.)
1,128	<u>one thousand one hundred twenty-eight</u>	(1 pt)
<u>1,129</u>	one thousand one hundred twenty-nine	(1 pt.)
1,130	<u>one thousand one hundred thirty</u>	(1 pt.)
1,140	<u>one thousand one hundred forty</u>	(1 pt.)

For extra practice, do Page 19

TOTAL POINTS	NUMBER CORRECT
15	

LEVEL	UNIT	SKILL	PAGE
E	01	4	10

Write the numeral for each of the number words.

seventy	70
seventy-eight	78
seven hundred eight	708
seven hundred eighty	780
seven thousand eight	7,008
seven thousand eighty	7,080
nineteen	19
ninety-one	91
twenty-nine	29
ninety-two	92
two hundred nine	209
nine hundred two	902

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	4	11

Write the number words for each numeral.

14 _____ (1pt.)

41 _____ (1pt.)

241 _____ (1pt.)

1,241 _____ (1pt.)

89 _____ (1pt.)

890 _____ (1pt.)

8,900 _____ (1pt.)

8,989 _____ (1pt.)

5,000 _____ (1pt.)

500 _____ (1pt.)

50 _____ (1pt.)

5 _____five_____ (1..)

5,555 _____

TOTAL POINTS	NUMBER CORRECT			LEVEL	UNIT	SKILL	PAGE
:3						4	12

Some numerals are read in a special way.

<u>YEARS</u>   1958   1800   1806

When the YEAR is written in numerals, like 1958 above, you read it

"nineteen fifty-eight."

Leave out the word <u>hundred</u>, and divide

the numeral into two parts

| 19 | 58 |

"nineteen fifty-eight"

But: | 18 | 00 |

"eighteen hundred"

and | 18 | 06 |

"eighteen oh-six"

Write the words you would use to say the following <u>years</u>.

1620   sixteen twenty

1066   ten sixty-six

1200   twelve hundred

1492   fourteen ninety-two

1902   nineteen oh-two

Notice that there is <u>no</u> <u>comma</u> when a year is written in numerals. 1902

is a year. 1,902 is <u>not</u> a year.

TOTAL POINTS	NUMBER CORRECT
5	

LEVEL	UNIT	SKILL	PAGE
E	01	4	13

This is a list of number words for reading <u>years</u>.

Write each year in numerals.

Remember, the <u>comma</u> is <u>not</u> <u>used</u> in writing a year in numerals.

twelve twenty   <u>1220</u>   eighteen seventy   <u>1870</u>

nineteen sixty   <u>1960</u>   nineteen hundred   <u>1900</u>

nineteen ninety   <u>1990</u>   nineteen oh four   <u>1904</u>

two thousand   <u>2000</u>   ten ten   <u>1010</u>

Write the correct number words.

1,942 (the numeral) is read as

<u>one thousand nine hundred forty-two</u>   (1 pt.)

1942 (the year-no comma) is read as

<u>nineteen forty-two</u>   (1 pt.)

1700 is read as

<u>seventeen hundred</u>   (1 pt.)

1,700 is read as

<u>one thousand seven hundred</u>   (1 pt.)

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	4	14

Telephone numbers are read in a special way.

Read each numeral separately. Say a series of single-place numerals.

882-6170 is read as

"eight eight two six one seven oh"

Write the words you would use to say these telephone numbers.

521-3523 __five two one three five two three__ (1pt)

471-2944 __~~ seven one two nine four four~~__ (1pt)

828-0358 __~~ two eight oh three five eight~~__ (1pt)

661-4287 __~~ six one four two eight seven~~__ (1pt)

TOTAL POINTS	NUMBER CORRECT
4	

LEVEL	UNIT	SKILL	PAGE
E	01	4	15

When you see a money symbol, such as $2.13, you know that the numerals to the left of the decimal point stand for dollars, and the numerals to the right of the decimal point stand for cents.

Read $2.38 as "two dollars and thirteen cents."

Read $.25 as "twenty-five cents."

Read $3.00 as "three dollars."

Write the words you would use to say these amounts of money.

$ 18.00   _eighteen dollars_   (1 pt)

$ 7.20   _seven dollars and twenty cents_   (1 pt)

$ 3.72   _three dollars and seventy-two cents_   (1 pt)

$ .56   _fifty-six cents_   (1 pt)

$ 1.08   _one dollar and eight cents_   (1 pt)

$121.35   _one hundred twenty-one dollars and thirty-five cents_   (1 pt)

For extra practice, do Page 20.

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
E	01	4	16

CET I

Write the numerals for these number words.

C I R C L E	TL. PTS.	
	5	100%
	NO. OF PTS.	%
	4	80
	3	60
C O R R E C T	2	40
	1	20
B O X		

two thousand four hundred nineteen _____

three hundred fifty-two _____

eight thousand six _____

Write the number words for these numerals.

783 _____

8,052 _____

Write a decimal numeral for each fraction.

$\frac{8}{10}$ _____ $37\frac{37}{100}$ _____

$4\frac{5}{10}$ _____ $93\frac{6}{100}$ _____

C I R C L E	TL. PTS.	
	6	100%
	NO. OF PTS.	%
	5	83
	4	67
C O R R E C T	3	50
	2	33
	1	17
B O X		

$123\frac{6}{10}$ _____ $212\frac{52}{100}$ _____

LEVEL	UNIT	SKILL	PAGE
E	01	4	17

Fill in the blanks to complete the number words for these numerals.

120   one _____ twenty

121   one hundred _____

122   _____ twenty-two

123   _____ twenty-three

223   ____ hundred twenty-three

323   ____ hundred twenty-three

Write the numerals for these number words.

five hundred   _____

four hundred   _____

four hundred fifty-one   _____

four hundred fifty-two   _____

four hundred fifty-three   _____

four hundred fifty-four   _____

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	4	18

265

Write the missing numerals and number words.

Numeral	Number words
_1,140_	**one thousand one hundred forty**
1,150	_one thousand one hundred fifty_ (1 pt)
_1,160_	**one thousand one hundred sixty**
1,260	**one thousand** _two_ **hundred sixty**
1,360	_one thousand three hundred sixty_ (1 pt)
_1,460_	**one thousand four hundred sixty**
2,460	_two_ **thousand four hundred sixty**
_3,460_	**three thousand four hundred sixty**
_5,460_	**five thousand four hundred sixty**
6,460	_six_ **thousand four hundred sixty**
6,560	**six thousand** _five_ **hundred sixty**
6,660	_six thousand six hundred sixty_ (1 pt)
7,660	_seven thousand six hundred sixty_ (1 pt)
8,760	_eight_ **thousand** _seven_ **hundred** _sixty_ (1 pt)
8,761	_eight_ thousand seven hundred sixty-one (1 pt)
_8,762_	**eight thousand seven hundred sixty-two**
9,762	_nine thousand seven hundred sixty-two_ (1 pt)

This is the way to read and write money symbols in number words.

$12.34

The numerals on	The numerals on
this side of the	this side of the
decimal point	decimal point
stand for dollars.	stand for cents.

Say,

"twelve dollars and thirty-four cents."

Rewrite these money symbols in number words.

$ 2.16

_____two_____ dollars and _____sixteen_____ cents

$ 5.02

_____five_____ dollars and _____two_____ cents

$21.35

twenty-one dollars and _thirty-five_ cents

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
E	01	4	20

CET II

Write the number words for these numerals.

	TL. PTS.	
	5	100%
	NO. OF PTS.	%
	4	80
	3	60
	2	40
	1	20

7,365 _____

9,006 _____

Write the numerals for these number words.

Seven thousand four _____

Nine thousand six hundred one _____

Four hundred twenty-seven _____

Write a decimal numeral for each fraction.

$\frac{9}{10}$ _____ $37\frac{41}{100}$ _____

$3\frac{7}{10}$ _____ $23\frac{9}{100}$ _____

$126\frac{13}{100}$ _____ $131\frac{3}{10}$ _____

	TL. PTS.	
	6	100%
	NO. OF PTS.	%
	5	83
	4	67
	3	50
	2	33
	1	17

LEVEL	UNIT	SKILL	PAGE
E	01	4	21

LEVEL E, NUMERATION, SKILL 4

OBJECTIVE: Gives the standard numeral for a 2-, 3-, or 4-place number written in words(and writes a 2-, 3-, or 4-place number in words.

STANDARD TEACHING SEQUENCE

Page		Supplementary Material
1.	Writes numeral or number words to complete chart; numbers from zero to 33.	
2.	Writes numerals or number words to complete chart; numbers from 38 to 74.	
3.	Writes numerals or number words to complete chart; numbers from 75 to 102.	
4.	Writes numeral for number words or number words for numerals, as requested, for numbers under 100.	
5.	Writes number words or numerals to complete chart; numbers from 100 to 117.	
6.	Writes numerals or number words to complete chart; numbers from 150 to 160 and from 250 to 255.	
7.	Writes numerals or number words to complete number chart; for numbers from 295 to 304 and for non-sequential set of numbers up to 1000.	
8.	Writes numerals for number words and number words for numerals as requested, for numbers under 1000.	18
9.	Writes numerals or number words to complete chart; numbers from 997 to 1,004 and from 1,015 to 1,021.	
10.	Writes numerals and number words to complete chart; numbers from 1,097 to 1,105 and from 1,125 to 1,140.	19
11.	Writes numerals for number words, as requested, for 2-, ? , and 4-place numbers.	
12.	Writes number words for numerals, as requested, for 2-, 3-, and 4-place numbers.	
13.	Writes words used to read a date, given the year in numerals.	
14.	Writes numerals for years given in words; distinguishes numerals which symbolize numbers from numerals which symbolize years (no comma), and writes appropriate number words.	
15.	Writes telephone number in number words.	
16.	Writes money symbols in number words and "dollars" and "cents."	20
17.	CET I.	
	CET II.	21

Circle pages that are to be done.

Standard Teaching Sequence, Con't.
1967-68

Textbook Resources:

Book	Teaching Pages	Practice Pages
Harcourt, Brace & World, 1966 Elementary Mathematics - 3		73

9f

SCHOOL CODE   NAME _____

                NUMBER _____ CLASS _____

ipi

individually prescribed instruction

MATHEMATICS

Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL E

NUMERATION (01)

SKILL 5

DEVELOPMENTAL EDITION

TO THE STUDENT

Can you change these common fractions into decimal numbers?

$$\frac{3}{10} \quad \text{——}$$

$$4\frac{72}{100} \quad \text{——}$$

You will learn how in this booklet.

Answers

.3

4.72

Do you remember how to write common fractions for tenths and hundredths as decimal numbers?

Here are a few examples.

Common fraction	Decimal number
$\frac{1}{10}$	.1
$\frac{3}{10}$	.3
$5\frac{9}{10}$	5.9

How many places to the right of the decimal point is the tenths' place? __1__ place

Common fraction	Decimal number
$\frac{6}{100}$	.06
$\frac{28}{100}$	.28
$4\frac{55}{100}$	4.55

How many places to the right of the decimal point is the hundredths' place?

__2__ places

TOTAL POINTS	NUMBER CORRECT		LEVEL	UNIT	SKILL	
2			ᴅ	01	5	1

When you write a decimal number, the <u>decimal point</u> should remind you that you are writing a fraction, not a whole number.

Write these fractions as decimal numbers.

$\frac{5}{10}$ = _.5_ $\frac{25}{100}$ = _.25_

$\frac{4}{100}$ = _.04_ $\frac{17}{100}$ = _.17_

$\frac{67}{100}$ = _.7_ $\frac{2}{10}$ = _.2_

Write these decimal numbers as common fractions.

.4 = $\frac{4}{10}$ .35 = $\frac{35}{100}$

.07 = $\frac{7}{100}$ .96 = $\frac{96}{100}$

.03 = $\frac{3}{100}$ .8 = $\frac{8}{10}$

TOTAL POINTS	NUMBER CORRE...
12	

LEVEL	UNIT	SKILL	PAGE
E	01	5	2

Look at the following figures. How much of circle A is shaded? $\frac{10}{10}$

How much of circle B is shaded? $\frac{2}{10}$

A   B

$\frac{10}{10}$ or 1 whole $\frac{2}{10}$
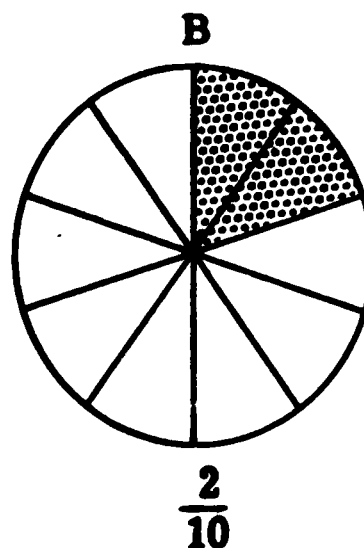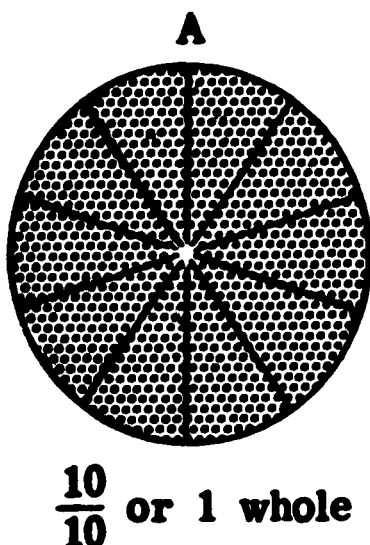
For circles A and B together, it is correct to say that <u>one</u> <u>and</u> <u>two</u> <u>tenths</u> of the circles are shaded. You can write a number for one and two tenths by writing the <u>whole</u> <u>number</u> <u>part</u> and then the <u>fraction</u> <u>part</u>.

$$\text{one and two tenths} = 1\frac{2}{10}$$

A number with a whole number part and a fraction part is called a <u>mixed</u> <u>fraction.</u>

Write the <u>mixed</u> <u>fraction</u> for these number words.

one and four tenths = $1\frac{4}{10}$

three and six hundredths = $3\frac{6}{100}$

six and twenty-five hundredths = $6\frac{25}{100}$

eight and one tenth = $8\frac{1}{10}$

For extra practice, do Page 10.

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
E	01	5	3

275

Suppose you have twenty-five whole circles and five tenths of another circle. You have a total of <u>twenty-five and five tenths</u> circles. Mixed fractions for larger numbers are written the same way as for smaller numbers. First write <u>the whole number part</u>, then write the <u>fraction part</u> after it.

$$\text{twenty-five and five tenths} = 25\frac{5}{10}$$

To write the decimal for any number, first write the <u>whole number part</u>, then a <u>decimal point</u>, then the <u>number of tenths or hundredths</u> in the fraction part.

$$\text{twenty-five and five tenths} = 25\frac{5}{10} = 25.5$$

Fill the blank spaces below.

	Mixed fraction	Decimal number
sixty-seven and five hundredths	$67\frac{5}{100}$	<u>67.05</u>
fifty and forty-two hundredths	$50\frac{42}{100}$	_____
_____	$15\frac{2}{10}$	<u>15.2</u>
twenty-three and seventeen hundredths	_____	_____

For extra practice do Page 11.

TOTAL POINTS	NUMBER CORRECT
5	

LEVEL	UNIT	SKILL	PAGE
E	01	5	4

You can write mixed fractions as <u>decimal numbers</u>. To write a mixed fraction as a decimal number, write the <u>whole number part</u>, a <u>decimal point</u>, and then the <u>number</u> <u>of</u> <u>tenths</u> <u>or</u> <u>hundredths</u> in the fraction part.

$$3\frac{5}{10} = \text{three and five tenths} = 3.5$$

Write these mixed fractions as decimal numbers.

$6\frac{2}{10} = \underline{6.2}$ $\qquad$ $41\frac{8}{10} = 41.8$

$4\frac{7}{100} = 4.07$ $\qquad$ $106\frac{33}{100} = 106.33$

$32\frac{5}{10} = 32.5$ $\qquad$ $92\frac{46}{100} = 92.46$

$63\frac{26}{100} = 63.26$ $\qquad$ $4\frac{3}{100} = 4.03$

Write these decimal numbers as mixed fractions.

$6.4 = 6\frac{4}{10}$ $\qquad$ $19.5 = 19\frac{5}{10}$

$8.23 = 8\frac{23}{100}$ $\qquad$ $11.36 = 11\frac{36}{100}$

$9.06 = 9\frac{6}{100}$ $\qquad$ $43.07 = 43\frac{7}{100}$

$22.31 = 22\frac{31}{100}$ $\qquad$ $36.92 = 36\frac{92}{100}$

For extra practic do Page 12.

TOTAL POINTS	NUMBER CORRECT
16	

LEVEL	UNIT	SKILL	PAGE
E	01	5	5

Draw a circle around the mixed fraction that means the same as the decimal number.

56.3　　　(56$\frac{3}{10}$)　　56$\frac{3}{100}$　　5$\frac{63}{100}$

.67　　　6$\frac{7}{10}$　　6$\frac{7}{100}$　　(67$\frac{}{100}$)

18.54　　185$\frac{4}{10}$　　18$\frac{54}{100}$　　185$\frac{4}{100}$

37.08　　37$\frac{8}{100}$　　37$\frac{8}{10}$　　370$\frac{8}{10}$

72.63　　72$\frac{63}{10}$　　726$\frac{3}{10}$　　(72$\frac{63}{100}$)

Draw a circle around the decimal number that means the same as the mixed fraction.

4$\frac{3}{100}$　　(4.03)　　4.3　　4.30

73$\frac{7}{10}$　　73.07　　73.7　　7.37

62$\frac{23}{100}$　　(62.23)　　622.3　　62.32

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	5	6

ERIC

Write as mixed fractions.　　　　**Write as decimal numbers.**

126.7 = $126\frac{7}{10}$　　　　　　$57\frac{3}{10}$ = _____

31.81 = _____　　　　　　$149\frac{27}{100}$ = _____

58.31 = _____　　　　　　$500\frac{6}{100}$ = _____

672.69 = _____　　　　　　$\frac{18}{100}$ = _____

147.03 = _____　　　　　　$82\frac{70}{100}$ = _____

52.06 = _____　　　　　　$365\frac{21}{100}$ = _____

11.43 = _____　　　　　　$721\frac{6}{10}$ = _____

225.25 = _____　　　　　　$8\frac{35}{100}$ = _____

For extra practic   do Page 13.

L POINTS	NUMBER CORRECT
16	

LEVEL	UNIT	SKILL	PAGE
E	01	5	7

Match the mixed fractions and decimal numbers by writing a letter in each blank.

____c____ 1) 5.66

a) $5\frac{81}{100}$

____d____ 2) 42.3

b) $67\frac{1}{10}$

____a____ 3) 5.81

c) $5\frac{66}{100}$

____b____ 4) 67.1

d) $42\frac{3}{10}$

____d____ 1) $9\frac{9}{10}$

a) 9.09

____a____ 2) $9\frac{9}{100}$

b) 99.9

____c____ 3) $9\frac{99}{100}$

c) 9.99

____b____ 4) $99\frac{9}{10}$

d) 9.9

____b____ 1) 22.5

a) $2\frac{5}{100}$

____d____ 2) 2.25

b) $22\frac{5}{10}$

____c____ 3) 2.2

c) $2\frac{2}{10}$

____a____ 4) 2.05

d) $2\frac{25}{100}$

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	5	8

CET I

► Write the mixed or common fraction for each decimal number.

1.37 _____   .03 _____

624.03 _____   6.1 _____

82.9 _____   27.45 _____

Write the decimal number for each fraction.

$42\frac{3}{10}$ _____ $1\frac{4}{10}$ _____

● $901\frac{15}{100}$ _____ $\frac{5}{100}$ _____

$24\frac{2}{100}$ _____ $\frac{7}{10}$ _____

Write the decimal for these number words.

three hundred and sixty-seven thousandths _____

two and eight thousandths _____

forty-three and seventy-eight thousandths _____

C I R C L E C O R R E C T B O X	TL. PTS.	
	3	100%
	NO. OF PTS.	%
	2	67
	1	33

LEVEL	UNIT	SKILL	PAGE
E	01	5	9

A number which has a whole number part and a fraction part is called a

mixed fraction.

This is an example.

one and two tenths $= 1\frac{2}{10}$

Draw a circle around each of these numbers which is a mixed fraction.

$7\frac{9}{100}$ $\frac{3}{10}$ $8\frac{4}{10}$ 4
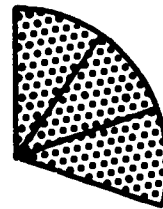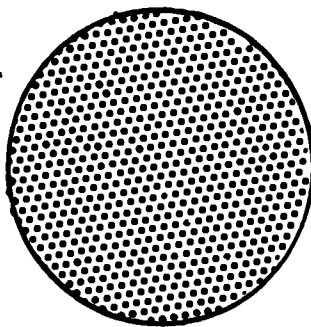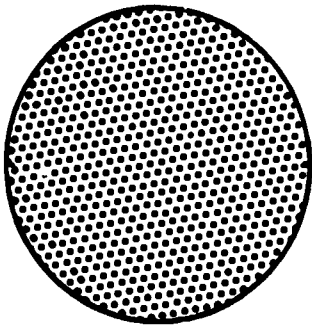
How many whole circles are there? ____

What fraction of a circle is there? $\frac{3}{10}$

Together there are two and three tenths circles.

Write two and three tenths as a mixed fraction. $2\frac{3}{10}$
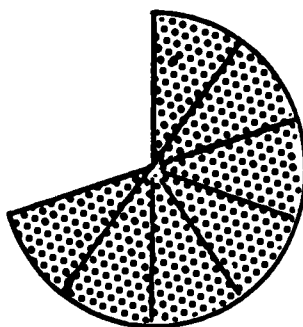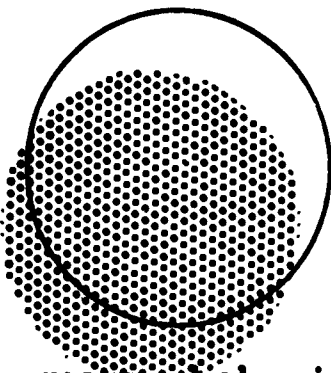
How many whole circles are there? ____

What fraction of a circle is there? $\frac{7}{10}$

Together there are _____ circles.

Write one and seven tenths as a mixed fraction.

_____

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
E	01	5	10

When you write a <u>mixed</u> <u>fraction</u> for number words, write the whole number part first and then the fraction part.
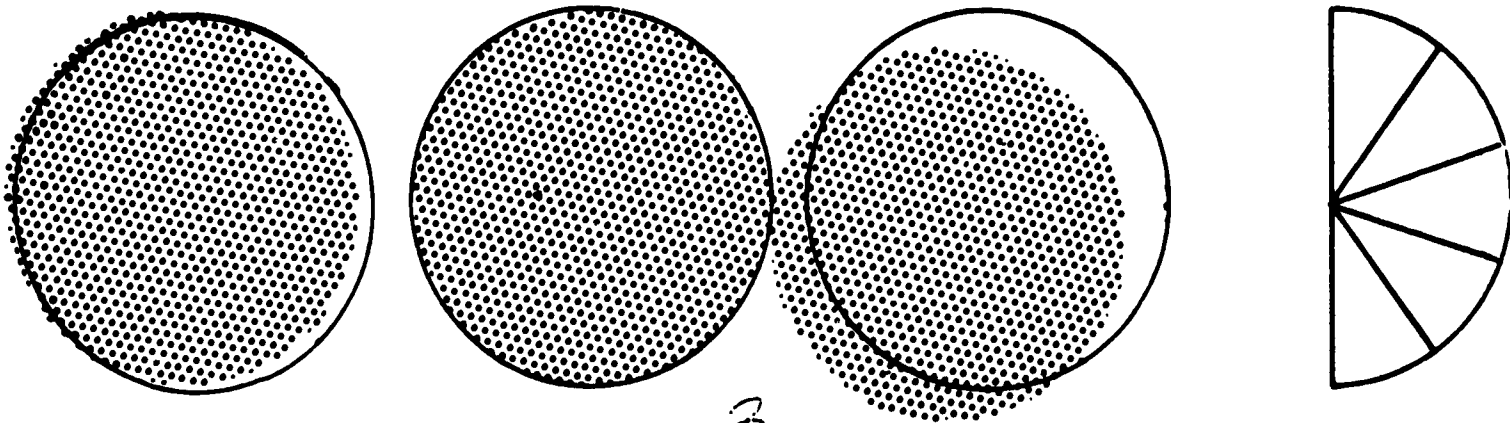
How many whole circles are there? $\frac{3}{}$

What fraction of a circle is there? $\frac{}{}$

Write a mixed fraction telling how many circles there are.

Write the <u>mixed</u> <u>fractions</u> for the following number words.

one and seven tenths = $1\frac{7}{10}$

four and twenty-one hundredths = $4\frac{21}{100}$

nine and nine tenths = $9\frac{9}{10}$

three and five tenths = $3\frac{5}{10}$

six and seven hundredths = $6\frac{7}{100}$

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
F	01	5	11

283

Write these mixed fractions as decimal numbers. Remember that the <u>decimal</u> <u>point</u> separates the <u>whole</u> <u>number</u> <u>part</u> from the <u>fraction</u> <u>part</u>.

$6\frac{7}{10} = $ _6.7_

$31\frac{25}{100} = $ _31.25_

$1\frac{14}{100} = $ _1.14_

$67\frac{5}{10} = $ _67.5_

$2\frac{7}{100} = $ _2.07_

$19\frac{72}{100} = $ _19.72_

$14\frac{9}{10} = $ _14.9_

$43\frac{4}{100} = $ _43.04_

Write these decimal numbers as mixed fractions. Remember that the digits <u>after</u> the <u>decimal</u> <u>point</u> show the <u>fractional</u> <u>part</u> of the number.

$3.8 = $ _$3\frac{8}{10}$_

$94.08 = $ _$94\frac{8}{100}$_

$6.91 = $ _$6\frac{91}{100}$_

$37.53 = $ _$37\frac{53}{100}$_

$7.02 = $ _$7\frac{2}{100}$_

$49.99 = $ _$49\frac{99}{100}$_

$25.2 = $ _$25\frac{2}{10}$_

$75.05 = $ _$75\frac{5}{100}$_

TOTAL POINTS	NUMBER CORRECT
16	

LEVEL	UNIT	SKILL	PAGE
E	01	5	12

Write a mixed fraction for each decimal number.

2.5 = $2\frac{5}{10}$ 8.7 = _____

9.25 = _____   25.48 = _____

5.63 = _____   679.42 = _____

32.24 = _____   98.68 = _____

Write the decimal fraction for each number.

$\frac{2}{10}$ = $.2$ $43\frac{57}{100}$ = _____

$4\frac{5}{10}$ = _____ $568\frac{4}{10}$ = _____

$22\frac{3}{10}$ = _____ $55\frac{55}{100}$ = _____

$10\frac{23}{100}$ = _____ $\frac{9}{100}$ = _____

TOTAL POINTS	NUMBER CORRECT
16	

LEVEL	UNIT	SKILL	PAGE
E	01	5	13

CET II

Write the decimal number for each fraction.

$33\frac{3}{10}$ _____ $9\frac{5}{10}$ _____

$687\frac{14}{100}$ _____ $\frac{2}{100}$ _____

$27\frac{45}{100}$ _____ $\frac{6}{10}$ _____

C I R C L E C O R R E C T B O X	TL. PTS.	
	12	100%
	NO. OF PTS.	%
	11	92
	10	83
	9	75
	8	67
	7	58
	6	50
	5	42
	4	33
	3	25
	2	17
	1	8

Write the mixed or common fraction for each decimal number.

2.48 _____   .09 _____

335.06 _____   5.1 _____

57.8 _____   42.27 _____

Write the decimal number for these number words.

two and nine thousandths _____

eighty-one and seventy-two hundredths _____

one hundred thirty and four tenths _____

C I R C L E C O R R E C T B O X	TL. PTS.	
	3	100%
	NO. OF PTS.	%
	2	67
	1	33

LEVEL	UNIT	SKILL	PAGE
E	01	5	14

LEVEL E, NUMERATION, SKILL 5

OBJECTIVE: Writes the correct decimal fraction for a common or mixed fraction having a denominator of either ten or one hundred, and vice versa.

STANDARD TEACHING SEQUENCE

Page		Supplementary Material
1.	Reviews writing fractions as decimal numbers.	
2.	Writes fractions as decimal numbers, and vice versa.	
3.	Writes mixed fractions for number words.	10
4.	Writes number words, mixed fractions, and decimal numbers.	11
5.	Writes mixed fractions as decimal numbers, and vice versa.	12
6.	Selects mixed fraction that means same as decimal number, and vice versa.	
7.	Writes decimal number as mixed fraction, and vice versa.	13
8.	Matches mixed fractions and decimal numbers.	
9.	CET I.	
	CET II.	14

Circle pages that are to be done.

E-Num-5

Standard Teaching Sequence, Con't.
1967-68

Teaching Aids:

Ideal Place Value Cards

Textbook Resources:

Book	Teaching Pages	Practice Pages
Harcourt, Brace & World, 1966 Elementary Mathematics - 5	235, 236	
Harcourt, Brace & World, 1966 Elementary Mathematics - 6	77, 81	

SCHOOL CODE

NAME _____

NUMBER _____ CLASS _____

ipi

individually prescribed instruction

MATHEMATICS

Standard Teaching Sequence Booklet

Ⓒ Ⓒ

TEACHER'S EDITION

LEVEL E

NUMERATION (01)

SKILL 6

DEVELOPMENTAL EDITION

Write the mixed decimal fractions named by the number words.

fifteen and twelve thousandths _____

sixty-three and nine hundred forty-one thousandths _____

Answers

15.012
63.941

Write the fractions.

If you divided an object equally into 1,000 parts, one of these parts would be

$\frac{1}{1,000}$ of the object. ($\frac{1}{1,000}$ is read "one thousandth.")

How would you write 2 parts of the object? $\frac{2}{1000}$

                           3 parts? $\frac{3}{1000}$

                     10 parts? $\frac{10}{1000}$

                     30 parts? $\frac{30}{1000}$

               100 parts? $\frac{100}{1000}$

               557 parts? $\frac{557}{1000}$

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
F	01	6	1

Here is a value chart.

	hundreds	tens	ones	tenths	hundredths	thousandths	
				.1			one tenth
				.0	1		one hundredth
				.0	0	1	one thousandth

Write as a fraction.

.1 means $\dfrac{1}{10}$

.01 means $\dfrac{1}{100}$

.001 means $\dfrac{1}{1000}$

.005 means $\dfrac{5}{1000}$

.018 means $\dfrac{18}{1000}$

Write the fraction.

seven thousandths $\dfrac{7}{1000}$

eighty-one thousandths $\dfrac{81}{1000}$

one hundred one thousandths $\dfrac{101}{1000}$

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	6	2

Fill in the chart.

Number Words	Fraction	Decimal Fraction
seven thousandths	$\frac{7}{1000}$	.007
seventeen thousandths	$\frac{17}{1000}$	.017
twenty-five thousandths	$\frac{25}{1000}$	.025
forty-four thousandths	$\frac{44}{1000}$	.044
one hundred twelve thousandths	$\frac{112}{1000}$	.112
two hundred forty thousandths	$\frac{240}{1000}$	.240
seven hundred thousandths	$\frac{700}{1000}$	.700
seven hundred fifty thousandths	$\frac{750}{1000}$	.750
thirty thousandths	$\frac{30}{1000}$	.030

TOTAL POINTS	NUMBER CORRECT
18	

LEVEL	UNIT	SKILL	PAGE
E	01	6	3

A decimal fraction for thousandths has __3__ digits after the decimal point.

Write a decimal fraction for these number words.

one thousandth   .001

four thousandths   .004

thirty-five thousandths   .035

three hundred twenty-seven thousandths   .327

eight thousandths   .008

fifty thousandths   .050

one hundred thousandths   .100

one hundred five thousandths   .105

seven hundred forty thousandths   .740

two hundred fifty-three thousandths   .253

five thousandths   .005

twenty thousandths   .025

For extra practice, do Page 14.

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	6	4

Circle the correct number word for each of the following decimal fractions.

.008
    eight-tenths

    eight hundredths

    (eight thousandths)

.04
    four tenths

    (four hundredths)

    four thousandths

.006
    six tenths

    six hundredths

    (six thousandths)

.3
    (three tenths)

    three hundredths

    three thousandths

.07
    seven tenths

    (seven hundredths)

    seven thousandths

.1
    (one tenth)

    one hundredth

    one thousandth

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
E	01	6	5

The place value of the <u>last digit</u> tells us how to read a decimal fraction. Circle the number words named by the decimal fractions.

Decimal	Number Words
.11	eleven tenths
	(eleven hundredths)
	one hundredth
.011	one thousandth
	eleven hundredths
	(eleven thousandths)
.020	(twenty thousandths)
	twenty hundredths
	two thousandths
.500	five thousandths
	five hundred
	(five hundred thousandths)
.008	(eight thousandths)
	eight tenths
	eight hundred thousandths

For extra practice, do Page 15.

TOTAL POINTS	NUMBER CORRECT
5	

LEVEL	UNIT	SKILL	PAGE
E	01	6	6

Here is a mixed decimal fraction.

$$4 \cdot 2\ 5$$

four   and   twenty-five hundredths

The word "and" separates the whole number from the decimal fraction.

4.25 can be written as $4\frac{25}{100}$ or $\frac{425}{100}$.

Now study this example.

$$6 \cdot 3\ 4\ 4$$

six   and   three hundred forty-four thousandths

This mixed decimal fraction can also be written like this.

$$6.344 = 6\frac{344}{1000} \text{ or } \frac{6344}{1000}$$

Fill in the blanks.

6 and 75 hundreds is the same as   6.75

2 and 313 thousandths is the same as   2.313

3 and 5 tenths is the same as   3.5

14 and 37 hundreds is the same as   14.37

TOTAL POINTS	NUMBER CORRECT
3	

LEVEL	UNIT	SKILL	PAGE
E	01	6	7

Draw a circle around the <u>whole number</u> part of the mixed decimal fraction.

.67   .676   ⬭6⬭676

⬭4⬭13   .413   .41

.03   ⬭3⬭03   .345

⬭6⬭91   .69   .697

Circle the mixed decimal fraction named by the number words.

six and seven tenths.
.67
(6.7)
6.07

nine and five hundredths.
.905
9.005
(9.05)

ten and twelve hundredths
1.012
(10.12)
.1012

thirteen and twenty hundredths
(13.20)
1.320
.1320

For extra practice, do page 16.

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	6	8

Draw a circle around the mixed decimal fraction for these number words.

	16.4
sixteen and four thousandths	16.04
	(16.004)
	(8.014)
eight and fourteen thousandths	8.14
	81.4
	21.7
twenty-one and seven thousandths	(21.007)
	21.07
	25.001
twenty-five and one hundred thousandths	25.1
	(25.100)
	(33.033)
thirty-three and thirty-three thousandths	33.33
	33.330
	40.40
forty and four thousandths	(40.004)
	40.400

TOTAL POINTS	NUMBER CORRECT
6	

LEVEL	UNIT	SKILL	PAGE
E	01	6	9

Write the mixed decimal fraction for these number words.

seven and three-tenths   _7.3_

eight and five hundredths   _8.05_

five and two thousandths   _5.002_

four and fifteen hundredths   _4.15_

ten and eleven thousandths   _10.011_

sixteen and twelve thousandths   _16.012_

twenty and one hundred thousandths   21.100

twenty-one and thirty hundredths   _21.30_

fourteen and seventy-one hundredths   _14.71_

one and one thousandth   _1.001_

two and two hundredths   _2.02_

nine and seven-tenths   _9.7_

For extra practice, do Page 17.

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	6	10

As you have learned, there is more than one way to write a mixed decimal fraction.

4.25 may be written $\frac{425}{100}$ or $4\frac{25}{100}$ or 4 and 25 hundredths.

Another way to write 4.25 is 425 hundredths.

Now read the number words and fill in the blanks.

4 2 5   hundredths   = 4 . 2 5

3 3 0   hundredths   = _3.30_

5 3 4 2   thousandths   = _5.342_

3 5   tenths   = _3.5_

6 3   tenths   = _6.3_

9 71 hundredths = 9 . 7 1

TOTAL POINTS	NUMBER CORRECT
5	

LEVEL	UNIT	SKILL	PAGE
E	01	6	11

Write the mixed decimal fraction for these number words.

Thirty and four hundred twenty-five thousandths   30.425

Six and four tenths   6.4

Eighty and two hundredths   80.02

fifty-three and seven hundred nine thousandths   53.709

thirty-seven and forty-nine hundredths   37.49

eighteen and three hundred ninety-nine thousandths   18.399

four hundred sixty-eight and three-tenths   468.3

one thousand and one hundredth   1000.01

sixty-seven and one hundred fifty thousandths   67.150

TOTAL POINTS	NUMBER CORRECT
9	

LEVEL	UNIT	SKILL	PAGE
E	01	6	12

CET I

Write the number words for these mixed decimal numerals.

1.6 _____

71.073 _____

18.962 _____

Write the decimal numeral for these number words.

two and four hundred thousandths _____

twenty-three and twenty-nine thousandths _____

three hundred one and thirty-three hundredths _____

sixty and four hundred two thousandths _____

C I R C L E	TL. PTS.	
	7	100%
	NO. OF PTS.	%
C O R R E C T	6	86
	5	71
	4	57
	3	43
	2	29
	1	14
B O X		

Write these decimal numerals as mixed fractions.

6.034 = _____   7.883 = _____

62.003 = _____   100.001 = _____

C I R C L E	TL. PTS.	
	4	100%
	NO. OF PTS.	%
C O R R E C T	3	75
	2	50
	1	25
B O X		

LEVEL	UNIT	SKILL	PAGE
E	01	6	13

A decimal fraction for thousandths has __3__ digits after the decimal point.

Circle the numerals below that are decimal fractions for thousandths.

(.375)   .4   (.006)   .20

(.029)   (.020)   .12   .76

Circle the decimal fraction that is the same as the number word.

seven thousandths
.7
.07
(.007)

forty thousandths
.4
.40
(.040)

six hundred fifty thousandths
(.650)
.065
.665

three thousandths
.03
.3
(.003)

seventeen thousandths
.17
(.017)
.170

TOTAL POINTS	NUMBER CORRECT
13	

LEVEL	UNIT	SKILL	PAGE
E	01	6	14

304

Write .600 in the place value chart below.

.	6	0	0
.	tenths	hundredths	thousandths

The last digit falls in the thousandths place, so .600 is read as

"six hundred thousandths."

Circle the number words named by the decimal fractions.

.050
          fifty hundredths

          (fifty thousandths)

          five thousandths

.006
          six hundredths

          six hundred thousandths

          (six thousandths)

.015
          (fifteen thousands)

          fifteen hundredths

          fifteen tenths

.720
          seven hundred twenty

          seven hundred twenty hundredths

          (seven hundred twenty thousandths)

TOTAL POINTS	NUMBER CORRECT
5	

LEVEL	UNIT	SKILL	PAGE
E	01	6 ·	15

A mixed decimal fraction has a whole number and a decimal fraction.

Study this example.

$$6 \, . \, 0 \, 5 \, 1$$

Six   and   fifty-one thousandths

Circle the mixed decimal fraction named by the number words.

4.7

four and seven thousandths   4.07

(4.007)

8.012

eight and twelve hundredths   8.12

8.120

11.019

eleven and nineteen thousandths   11.19

11.190

1.50

one and five hundredths   1.005

1.05

TOTAL POINTS	NUMBER CORRECT
4	

LEVEL	UNIT	SKILL	PAGE
E	01	.6	16

Write the mixed decimal fraction named by the number words.

Seventy-five and twenty-one thousandths

7 5 . 0 2 1

ninety-nine and twelve hundredths   _99.12_

three hundred and seven thousandths   _300.007_

one and six hundred fifty-five thousandths   _1.655_

forty-four and four thousandths   _44.004_

seventeen and six hundred thousandths   _17.600_

eighty and two hundredths   _80.02_

one hundred and sixteen hundredths   _100.16_

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
E	01	6	17

CET II

Write the decimal numeral for these number words.

nine and two hundredths _____

forty-six and three hundred twenty-two thousandths _____

five hundred one and eight-tenths _____

ninety and seven hundred three thousandths _____

Write the number words for these mixed decimal numerals.

C I R C L E C O R R E C T B O X	TL. PTS.	
	7	100 %
	NO. OF PTS.	%
	6	86
	5	71
	4	57
	3	43
	2	29
	1	14

26.04 _____

3.697 _____

5.9 _____

Write these decimal numerals as mixed fractions.

C I R C L E C O R R E C T B O X	TL. PTS.	
	4	100 %
	NO. OF PTS.	%
	3	75
	2	50
	1	25

7.049 _____   9.854 _____

35.004 _____   100.09 _____

LEVEL	UNIT	SKILL	PAGE
E	01	.6	18

308

LEVEL E, NUMERATION, SKILL 6

OBJECTIVE: Writes or selects number words for mixed decimal fractions to thousandths and vice versa.

STANDARD TEACHING SEQUENCE

Page | | Supplementary Material

1. Writes fractional equivalents for parts of 1,000.

2. Writes fractional equivalents for three-digit decimals.

3. Fills in chart with fractional and decimal equivalents to number words.

4. Writes decimal fractions (three-digit) for number words.   14

5. Circles number word for one-, two-, and three-digit decimals.

6. Circles number words for decimals.   15

7. Explanation of mixed decimal fraction.

8. Circles whole number part of mixed decimal fractions and circles mixed decimal fractions named by number words.   16

9. Circles mixed decimal fractions for number words.

10. Writes mixed decimal fractions for number words.   17

11. Fills in blanks for mixed decimal fractions.

12. Writes mixed decimal fractions for number words.

13. CET I.

    CET II.   18

Circle pages that are to be done.

Standard Teaching Sequence, Con't.

1967-68

Teaching Aids:

Ideal Place Value Cards

IPI

individually prescribed instruction

MATHEMATICS

Standard Teaching Sequence Booklet

TEACHER'S EDITION

LEVEL E

NUMERATION (01)

SKILL 7

DEVELOPMENTAL EDITION

TO THE STUDENT

Can you write these mixed fractions as mixed decimal fractions?

$$7\frac{3}{10} = \underline{\hspace{1.5cm}}$$

$$46\frac{237}{1000} = \underline{\hspace{1.5cm}}$$

$$33\frac{28}{100} = \underline{\hspace{1.5cm}}$$

You will learn how to do it in this booklet.

Answers

7.3
46.237
33.28

A common fraction is a fraction with no whole number part. $\frac{2}{3}$ is a common fraction.

A mixed fraction is a numeral with a whole number part and a fraction part. $2\frac{2}{3}$ is a mixed fraction.

Circle the common fractions below.

$\boxed{6\frac{12}{100}}$ .74 $\boxed{\frac{7}{10}}$ $\boxed{4\frac{3}{4}}$ $\boxed{\frac{39}{70}}$ 4.2

Put a $\boxed{}$ around the mixed fractions above.

A pure decimal fraction is a decimal number with no whole number part. .74 is a pure decimal fraction.

A mixed decimal fraction is a decimal number with a whole number part. 2.74 is a mixed decimal fraction.

Circle the pure decimal fractions below.

$\boxed{7.34}$ $\frac{2}{3}$ $\boxed{.93}$ $7\frac{1}{10}$ $\boxed{.86}$ $\boxed{2.9}$

Put a $\boxed{}$ around the mixed decimal fractions above.

For extra practice, do Page 10.

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	7	1

.001 is read <u>one</u> <u>thousandth</u>.

One thousandth is <u>1</u> of <u>1000</u> equal parts.

<u>1</u> of <u>1000</u> equal parts written as a fraction is $\frac{1}{1000}$.

$$.001 = \frac{1}{1000}$$

Write a common fraction which equals each pure decimal fraction below.

$.001 = \dfrac{1}{1000}$ $.008 = \dfrac{8}{1000}$

$.006 = \dfrac{6}{1000}$ $.009 = \dfrac{9}{1000}$

$.049 = \dfrac{49}{1000}$ $.010 = \dfrac{10}{1000}$

$.127 = \dfrac{127}{1000}$ $.020 = \dfrac{20}{1000}$

$.693 = \dfrac{693}{1000}$ $.099 = \dfrac{99}{1000}$

$.070 = \dfrac{70}{1000}$ $.100 = \dfrac{100}{1000}$

$.003 = \dfrac{3}{1000}$ $.487 = \dfrac{487}{1000}$

$.561 = \dfrac{561}{1000}$ $.620 = \dfrac{620}{1000}$

TOTAL POINTS	NUMBER CORRECT
17	

LEVEL	UNIT	SKILL	PAGE
E	01	7	2

When you write a decimal fraction as a <u>common</u> <u>fraction</u>, the place value of the last digit on the right of the decimal number tells you if the fraction is tenths, hundredths, or thousandths.

.2<u>1</u>   the last digit is in the _hundredths_ place

so .21 = $\frac{21}{100}$

.<u>7</u>   the last digit is in the _tenths_ place

so .7 = $\frac{7}{10}$

.65<u>7</u>   the last digit is in the thousandths place

so .657 = $\frac{657}{1000}$

.00<u>2</u>   the last digit is in the thousandths place

so .002 = $\frac{2}{1000}$

.0<u>4</u>   the last digit is in the hundredths place

so .04 = $\frac{4}{100}$

.06<u>0</u>   the last digit is in the thousandths place

so .060 = $\frac{60}{1000}$

.47<u>1</u>   the last digit is in the thousandths place

so .471 = $\frac{471}{1000}$

For extra practice, do Page 11.

TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
E	01	7	3

When you write a decimal number as a <u>mixed</u> <u>fraction</u> you first write the whole number part then the fraction part. The last digit of the decimal fraction tells whether the fraction is tenths, hundredths, or thousandths.

In these problems circle the whole number part, say the place value of the last digit to yourself, then write each number as a mixed fraction.

(56). 04 = $56\frac{4}{100}$

(25). 005 = $25\frac{5}{1000}$

(56). 7 = $56\frac{7}{10}$

(6). 025 = $6\frac{25}{1000}$

(100). 635 = $100\frac{635}{1000}$

(94). 94 = $94\frac{94}{100}$

(26). 9 = $26\frac{9}{10}$

(7). 125 = $7\frac{125}{1000}$

(65). 93 = $65\frac{93}{100}$

For extra practice, do Page 12.

TOTAL POINTS	NUMBER CORRECT
18	

LEVEL	UNIT	SKILL	PAGE
E	01	7	4

Write these decimal numbers as common or mixed fractions. Remember that the place value of the last digit tells you if the fraction is tenths, hundredths, or thousandths.

$.06 = \dfrac{6}{100}$

$6.75 = 6\dfrac{75}{100}$

$2.75 = 2\dfrac{75}{100}$

$.007 = \dfrac{7}{1000}$

$75.1 = 75\dfrac{1}{10}$

$75.63 = 75\dfrac{63}{100}$

$24.064 = 24\dfrac{64}{1000}$

$49.73 = 49\dfrac{73}{100}$

$100.621 = 100\dfrac{621}{1000}$

$56.792 = 56\dfrac{792}{1000}$

$25.7 = 25\dfrac{7}{10}$

$.671 = \dfrac{671}{1000}$

$38.65 = 38\dfrac{65}{100}$

$9.76 = 9\dfrac{76}{100}$

$.9 = \dfrac{9}{10}$

$76.142 = 76\dfrac{142}{1000}$

For extra practice, do Page 13.

TOTAL POINTS	NUMBER CORRECT
16	

LEVEL.	UNIT	SKILL	PAGE
E	01	7	5

Each box below is divided into 100 equal parts. Shade each box to show the meaning of the decimal numeral in front of it.

.21
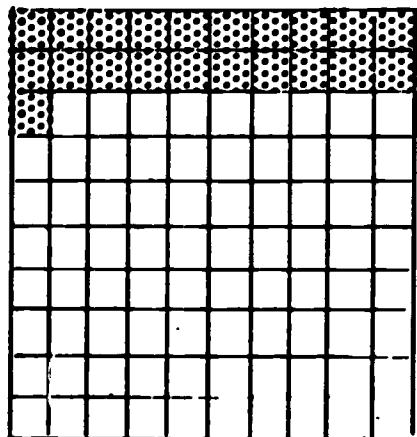
.36
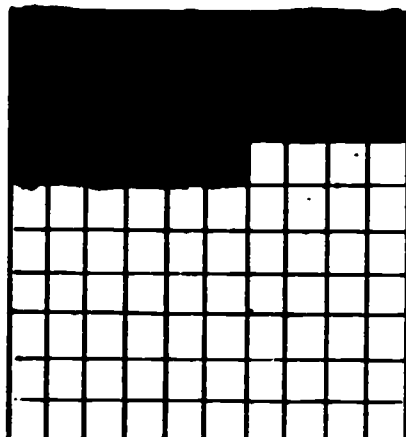
.80
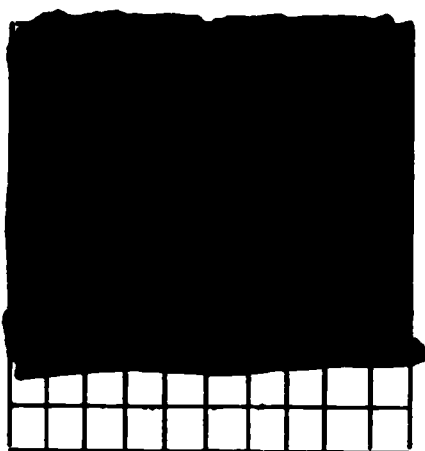
.05
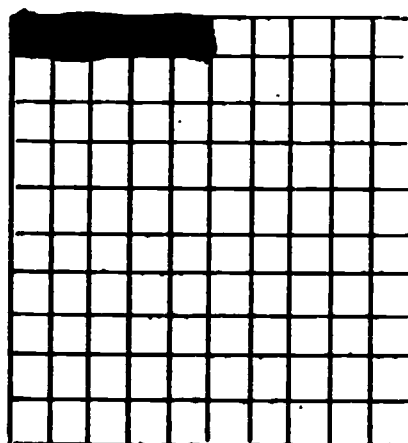
.08
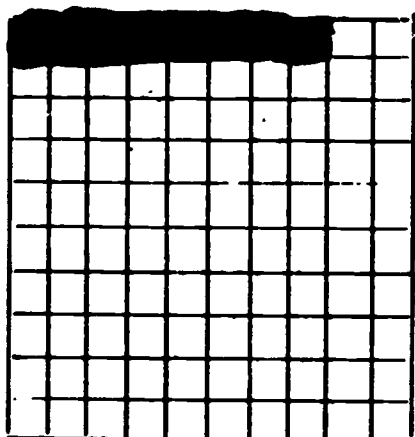
.60
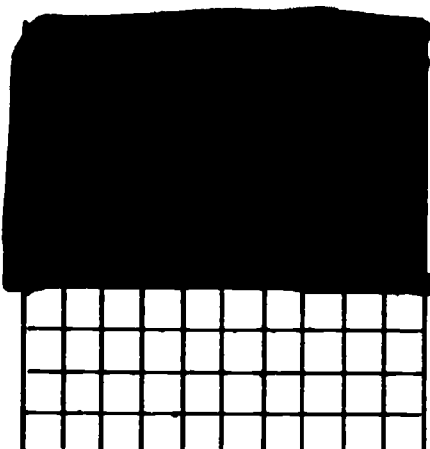
.4

.1
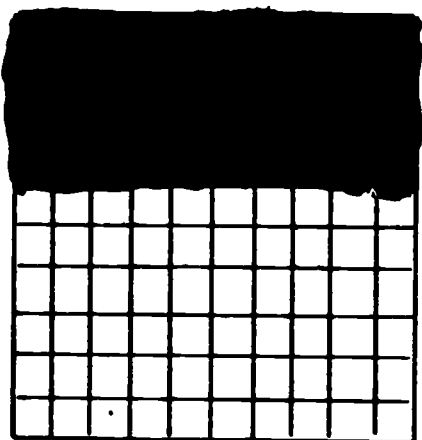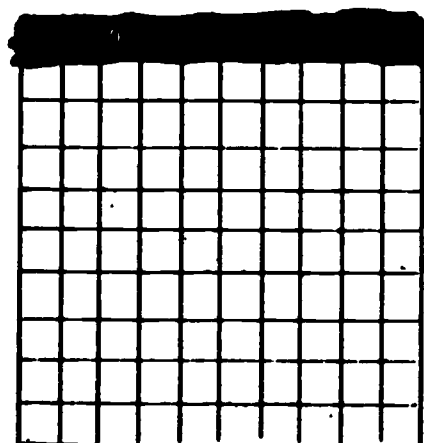
TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
E	01	7	6

This number line shows decimal numbers between 0 and 1. It is divided into tenths.
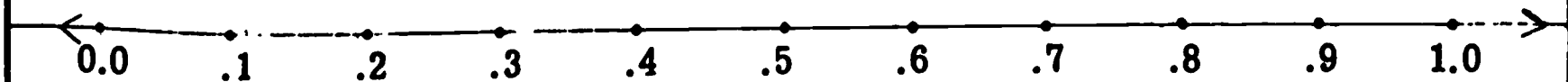
In each blank, write the number of tenths that comes just before the given number.

___.3___ .4   ___.5___ .6

___.8___ .9   ___.1___ .2

This number line shows decimal numbers between 4 and 5. It is divided into tenths.
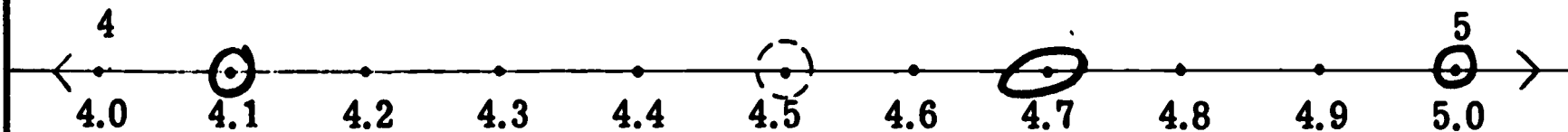
Find the following numbers on the number line. Circle the points on the number line labeled by these numbers.

4.5   4.7   5.0   4.1

This number line shows decimal numbers between .4 and .5. It is divided into hundredths.
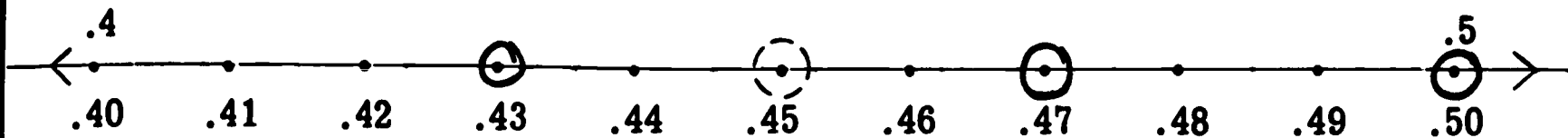
Circle the points on the number line labeled by these numbers.

.45   .47   .50   .43

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	7	7

319

Number line A goes from 0 to 2.5. It is divided into <u>tenths</u>.

```
     0                        1                        2
A ←——|—+—+—+—|—•—+—+—+—+—|—•—+—+—+—|—•—+—+—+—|—•—+—+—|—→
   0.0         ↑    .5   ↑     1.0  ↑    1.5        2.0     ↑   2.5
             .4         .7        1.2                     2.3
```
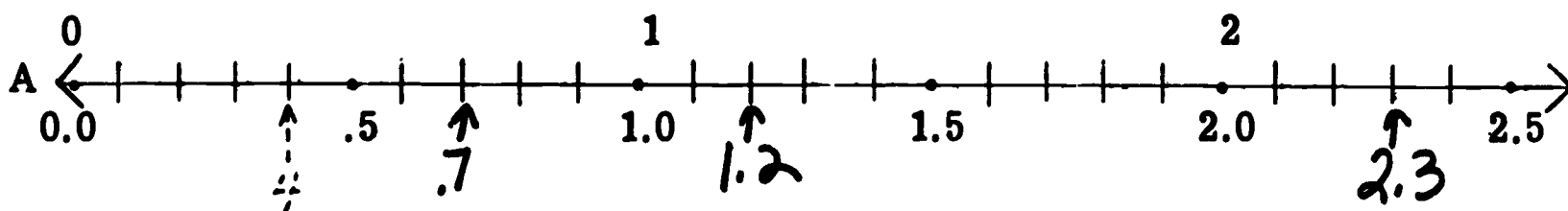
Find and label these points on Number line A.

.4   .7   1.2   2.3

Number line B goes from 1.80 to 2.05. It is divided into <u>hundredths</u>.

```
   1.8                      1.9                       2
B ←—|—+—+—+—•—+—+—+—|—•—+—+—↑—|—•—+—+—|—•—+—+—↑—|—+—+—|—→
  1.80        1.85  ↑   1.90  ↑   1.95       2.00  ↑    2.05
                  1.86 1.88       1.93              2.02
```
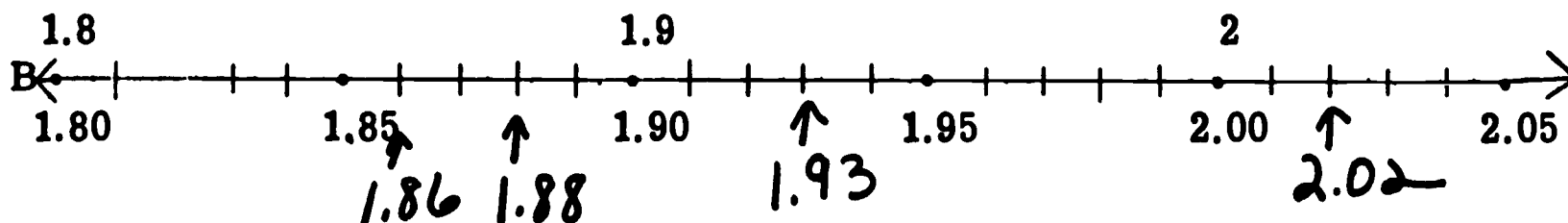
Find and label these points on Number line B.

1.86   1.88   1.93   2.02

Number line C goes from 1.950 to 1.975. It is divided into <u>thousandths</u>.

```
   1.95                     1.96                     1.97
C ←—+—+—+—|—•—+—+—+—|—•—+—|—•—+—+—+—|—•—+—+—+—|—•—+—+—|—•—→
 1.950  ↑   1.955       1.960 ↑  1.965    ↑1.970   ↑   1.975
      1.952                  1.961      1.969   1.973
```
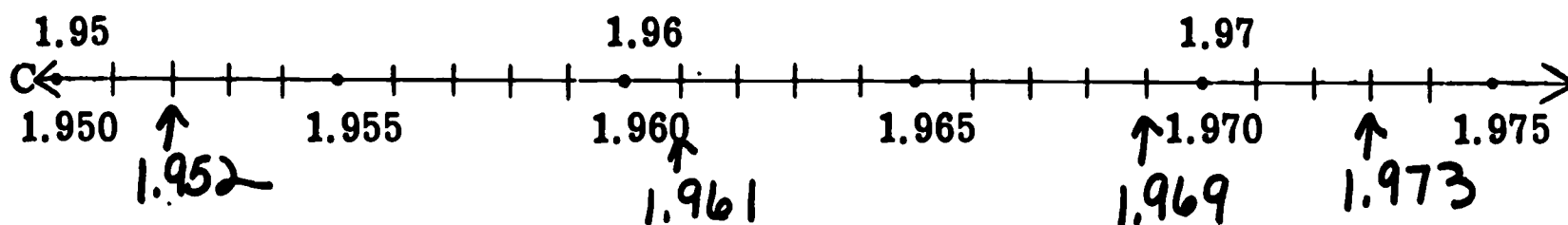
Find and label these points on Number line C.

1.969   1.952   1.973   1.961

For extra practice, do Page 14.

TOTAL POINTS	NUMBER CORRECT
12	

LEVEL	UNIT	SKILL	PAGE
E	01	7	8

320

CET I

Write the answer to each problem in the blank.

Write 2.071 as a mixed fraction. _____

Write 1.9 as a fraction. _____

Write 1.9 in words. _____

Write 3.971 in words. _____

Write .001 as a fraction. _____

Shade the circles to show 1.5.

C I R C L E	TL. PTS.	
	6	100%
	NO. OF PTS.	%
C O R R E C T	5	83
	4	67
	3	50
	2	33
B O X	1	17
		.

Write each set of numbers in order from largest to smallest.

C I R C L E	TL. PTS.	
	3	100%
	NO. OF PTS.	%
C O R R E C T	2	67
	1	33
B O X		.

3.47   3.07   3.74   —   ____ ____ ____

26.01   10.26   62.10   —   ____ ____ ____

.001   .010   .100   —   ____ ____ ____

LEVEL	UNIT	SKILL	PAGE
E	01	7	9

A <u>common</u> <u>fraction</u> is a fraction with <u>no</u> whole number part.

$\frac{1}{2}$ is a <u>common fraction</u>

A <u>mixed</u> <u>fraction</u> is a numeral with a whole number part and a fraction part.

$4\frac{3}{4}$ is a <u>mixed fraction</u>

A <u>pure</u> <u>decimal</u> <u>fraction</u> is a decimal number with <u>no</u> whole number part.

.06 is a <u>pure decimal fraction</u>

A <u>mixed</u> <u>decimal</u> <u>fraction</u> is a decimal number with a whole number part.

7.8 is a <u>mixed decimal fraction</u>

| 4.59 | $\frac{2}{5}$ | $6\frac{1}{2}$ | .4 |

Write the number above which is a <u>common fraction</u>. $\frac{2}{5}$

Which number is a <u>pure</u> <u>decimal</u> fraction? **.4**

Which number is a <u>mixed</u> <u>decimal</u> fraction? **4.59**

Which number is a <u>mixed</u> fraction? **$6\frac{1}{2}$**

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	7	10

Fill the place value chart, write the place value of the last digit of each decimal fraction, then write a common fraction which equals the decimal fraction.

	tenths	hundredths	thousandths	
.73	7	3	—	The last digit is in the **hundredths** place. .73 = $\frac{73}{100}$
.4	4			The last digit is in the **tenths** place. .4 = $\frac{4}{10}$
.625	6	2	5	The last digit is in the **thousandths** place. .625 = $\frac{625}{1000}$
.008	0	0	8	The last digit is in the **thousandths** place. .008 = $\frac{8}{1000}$
.06	0	6		The last digit is in the **hundredths** place. .06 = $\frac{6}{100}$

TOTAL POINTS	NUMBER CORRECT
15	

LEVEL	UNIT	SKILL	PAGE
E	01	7	11

323

.9.21

What is the whole number part of 9.21? **9**

What is the pure decimal fraction part of 9.21? **.21**

Write .21 as a common fraction. $\frac{21}{100}$

To write 9.21 as a **mixed fraction** first write the whole number part and then write the common fraction part.

$$9.21 = 9\frac{21}{100}$$

20.674

What is the whole number part of 20.674? **20**

What is the pure decimal fraction part of 20.674? **.674**

Write .674 as a common fraction. $\frac{674}{1000}$

$$20.674 = 20\frac{674}{1000}$$

47.3

What is the whole number part of 47.3? **47**

What is the pure decimal fraction part of 47.3? **.3**

Write .3 as a common fraction. $\frac{3}{10}$

$$47.3 = 47\frac{3}{10}$$

Write the following as mixed fractions.

$$3.41 = 3\frac{41}{100}$$ $$82.074 = 82\frac{74}{1000}$$

TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
E	01	7	12

Circle the common or mixed fraction that means the same as the decimal fraction. Remember that the decimal point separates the whole number part from the fraction part.

.08	$\frac{8}{10}$ $\boxed{\frac{8}{100}}$ ⟵ circled $\frac{8}{1000}$
2.7	$\boxed{2\frac{7}{10}}$ ⟵ circled $2\frac{7}{100}$ $2\frac{7}{1000}$
20.475	$\boxed{20\frac{475}{1000}}$ ⟵ circled $2\frac{475}{1000}$ $24\frac{75}{100}$
6.03	$\boxed{6\frac{3}{100}}$ ⟵ circled $6\frac{3}{1000}$ $6\frac{3}{10}$

ERIC

This number line shows decimal numbers between 2.0 and 3.5. It is divided into tenths. Write the missing numbers on the blanks below this number line.

$$\longleftarrow \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \longrightarrow$$

2.0   2.2   2.3   2.5   2.6   2.8   2.9   3.0   3.2   3.4   3.5
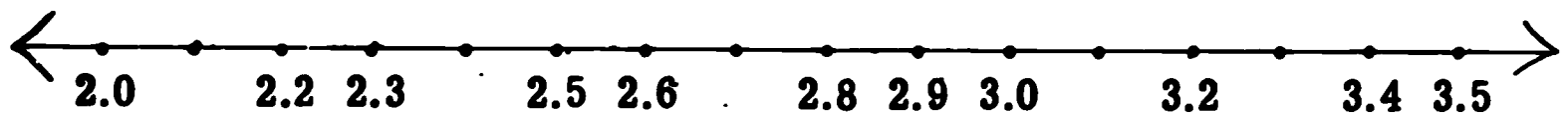
_2.1_   _2.4_   _2.7_   _3.1_   _3.3_

This number line shows decimal numbers between 0 and .12. It is divided into hundredths. Write the missing numbers on the blanks below this number line.

0

$$\longleftarrow \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \longrightarrow$$

.00   .01   .02   .04   .06   .07   .09   .11   .12
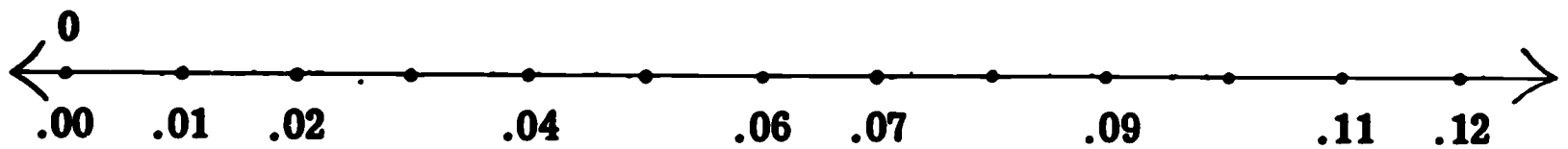
_.03_   _.05_   _.08_   _.10_

This number line shows decimals between .060 and .072. It is divided into thousandths. Write the missing numbers on the blanks below this number line.

.06

$$\longleftarrow \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \quad \longrightarrow$$

.060   .061   .063   .065   .067   .068   .070   .072
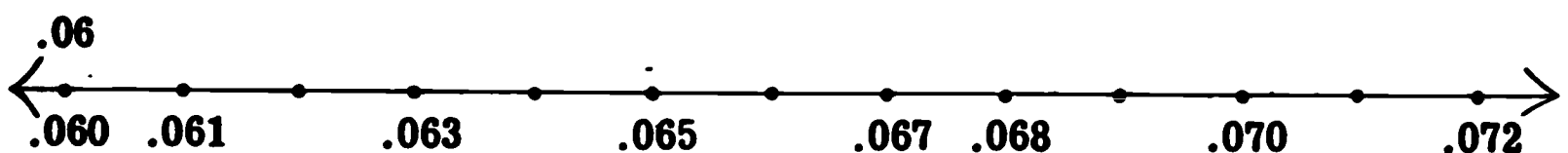
_.062_   _.064_   _.066_   _.069_   _.071_

TOTAL POINTS	NUMBER CORRECT
14	

LEVEL	UNIT	SKILL	PAGE
E	01	7	14

CET II

Write the answer to each problem in the blank.

C I R C L E	TL. PTS.	
	6	100%
	NO. OF PTS.	%
C O R R E C T	5	83
	4	67
	3	50
	2	33
B O X	1	17

Write 3.415 as a mixed fraction. _____

Write 1.8 as a mixed fraction. _____

Write 4.205 in words. _____

Write .006 as a fraction. _____

Write 24.32 in words. _____

Shade the boxes to show 1.6.

Write each set of numbers in order from smallest to largest.

C I R C L E	TL. PTS.	
	3	100%
	NO. OF PTS.	%
C O R R E C T	2	67
	1	33
B O X		

3.05   2.05   5.03   — _____ _____ _____

9.62   9.12   9.96   — _____ _____ _____

4.05   3.15   4.16   — _____ _____ _____

LEVEL	UNIT	SKILL	PAGE
E	01	7	15

OBJECTIVE: Converts mixed decimal fractions to thousandths and various other forms. For example, pictures; common or mixed fractions; position on number line. Limit of whole numbers to 100.

STANDARD TEACHING SEQUENCE

Page		Supplementary Material
1.	Identifies common fractions, mixed fractions, pure decimal fractions, and mixed decimal fractions.	10
2.	Writes common fractions for pure decimal fractions.	
3.	Writes place value of last digit of pure decimal fractions, then writes common fraction for given pure decimal fractions, then writes common fraction for given pure decimal fraction.	11
4.	Circles whole number part of mixed decimal fraction; writes mixed fraction equivalent.	12
5.	Writes common or mixed fraction equal to given pure or mixed decimal fraction.	
6.	Shades area of hundreds square to correspond with given pure decimal fraction.	
7.	Locates and labels pure and mixed decimal fractions on number line.	
8.	Locates and labels pure and mixed decimal fractions on number line.	14
9.	CET I.	
	CET II.	15

Circle pages that are to be done.

328

9i

SCHOOL CODE

NAME _____

NUMBER _____ CLASS _____

IPI

individually prescribed instruction

MATHEMATICS

Standard Teaching Sequence Booklet

TEACHER'S EDITION
LEVEL **E**
NUMERATION (01)
SKILL **8**

8Based upon materials developed by The Mathematics Curriculum Staff, Learning Research and Development Center, University of Pittsburgh; Joseph I. Lipson, Ph.D., Director; Edith Kohut; Barbara Thomas.

Written by the staff of Appleton-Century-Crofts under the direction of Jerome D. Kaplan, Ed.D., Teachers College, Columbia University

Appleton-Century-Crofts ACC Division of Meredith Publishing Company

DEVELOPMENTAL EDITION

TO THE STUDENT

Put these numbers in order from smallest to largest.

5.751   5.093   5.749

___   ___   ___

Answers

5.093

5.749

5.751

You can use number lines to help decide if one decimal fraction is greater or less than another decimal fraction.

Here is a number line divided into <u>tenths</u>.
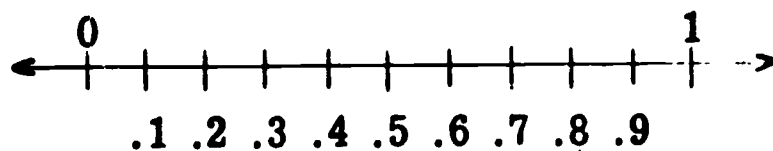
.4 is less than (<) .5 because $\frac{4}{10}$ is $< \frac{5}{10}$. Use the number line to help you see which decimal fractions are larger or smaller.

Using the number line above, put > or < in the circle provided to make a true statement.

.8 ◯ .4   .2 ◯ .6

.7 ◯ .9   1.0 ◯ .9

Here is a number line divided into <u>hundredths</u>.
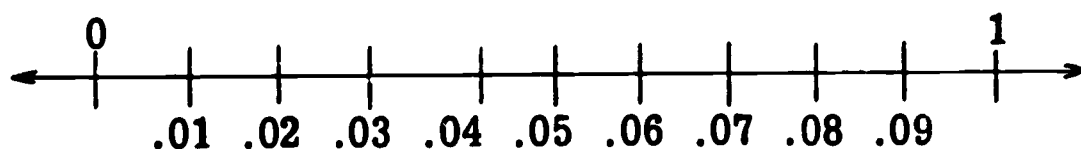
Is .02 < or > .06? .06 is greater than .02 because $\frac{6}{100}$ is greater than $\frac{2}{100}$. You can use a number line to help you figure out which decimal fraction is larger or smaller.

This number line shows decimals between 3.79 and 3.81. It is divided into thousandths.
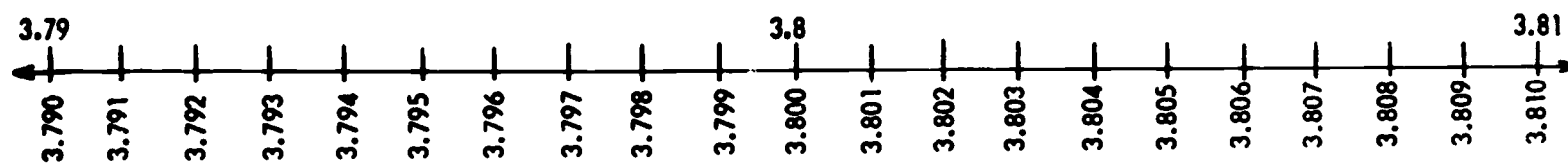
Using the number line above, put > or < in the circles to make a true statement.

3.796 ◯ 3.797   3.797 ◯ 3.805

3.804 ◯ 3.800   3.808 ◯ 3.804

3.804 ◯ 3.8   3.81 ◯ 3.809

TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
E	01	8	1

Compare .8 and .09. Which is larger?

Here is how to compare each number.

$$8 = \frac{8}{10} \quad \text{and} \quad .09 = \frac{9}{100}$$

$$\frac{8}{10} \frac{(8 \times 10)}{(10 \times 10)} = \frac{80}{100} \quad \text{(another name for } \frac{8}{10}\text{)}$$

$$\frac{80}{100} > \frac{9}{100} \quad \text{so:} \quad .8 \bigotimes .09$$

Fill in the circles with > or <.

.07 $\bigotimes$ .1

$$\left[\begin{array}{l} \text{Think, } .07 = \frac{7}{100} \\ \qquad .1 = \frac{1}{10} \\ \text{but } \frac{1}{10} = \frac{10}{100} \text{ so } \frac{7}{100} < \frac{10}{100} \text{ and } .07 < .1 \end{array} \right]$$

.08 $\bigotimes$ .8   .04 $\bigotimes$ .4

.07 $\bigotimes$ .7   .03 $\bigotimes$ .3

.06 $\bigotimes$ .6   .02 $\bigotimes$ .2

.05 $\bigotimes$ .5   .01 $\bigotimes$ .1

For extra practice, do Page 13.

TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
E	01	8	2

Put > or < in the circle.

$$91.77 \enspace \overset{\frown}{\smile} \enspace 90.84$$

To compare mixed decimal fractions, first look at the whole numbers. If they are different, they are easily compared.

For example, 8.06 ? 6.16

If the whole numbers are the same you must look at the fractional part of the number and compare them as you learned.

For example, 8.06 ? 8.16

same whole   different fractional
number   part

The decimal part can then be written as a fraction

$$.06 \quad ? \quad .16 \text{ is } \frac{6}{100} \quad ? \quad \frac{16}{100}.$$

Fill in the circles with > or <.

14.03 $\bigcirc$ 15.3

4.31 $\bigcirc$ 4.36

25.053 $\bigcirc$ 26.055

19.09 $\bigcirc$ 19.9

21.302 $\bigcirc$ 22.301

18.400 $\bigcirc$ 18.401

TOTAL POINTS	NUMBER CORRECT
7	

LEVEL	UNIT	SKILL	PAGE
E	01	8	3

Put > or < in the circles to make the statement true.

6.40 $\bigcirc$ 6.50   10.42 $\bigcirc$ 10.32

6.41 $\bigcirc$ 6.50   10.42 $\bigcirc$ 10.33

6.42 $\bigcirc$ 6.50   10.42 $\bigcirc$ 10.34

7.30 $\bigcirc$ 7.20   11.83 $\bigcirc$ 11.90

7.30 $\bigcirc$ 7.21   11.84 $\bigcirc$ 11.90

7.30 $\bigcirc$ 7.22   11.85 $\bigcirc$ 11.90

8.55 $\bigcirc$ 8.65   15.10 $\bigcirc$ 15.20

8.56 $\bigcirc$ 8.65   15.11 $\bigcirc$ 15.21

8.57 $\bigcirc$ 8.65   15.12 $\bigcirc$ 15.22

TOTAL POINTS	NUMBER CORRECT
18	

LEVEL	UNIT	SKILL	PAGE
E	01	8	4

334

Put > or < in the circles to make the statement true.

4.390 (<) 4.40   19.059 ( ) 19.1

4.391 (<) 4.40   19.060 ( ) 19.1

4.392 (<) 4.40   19.061 ( ) 19.1

6.900 ( ) 6.897   47.30 ( ) 47.310

6.900 ( ) 6.898   47.30 ( ) 47.311

6.900 ( ) 6.899   47.30 ( ) 47.312

10.441 ( ) 10.451   9.702 ( ) 9.71

10.442 ( ) 10.452   9.703 ( ) 9.72

10.443 ( ) 10.450   9.704 ( ) 9.73

20.354 ( ) 20.345

20.354 ( ) 20.346

20.354 ( ) 20.347

TOTAL POINTS	NUMBER CORRECT
21	

LEVEL	UNIT	SKILL	PAGE
E	01	8	5

Put a > or < in the circles. Remember, look at the whole numbers first.

41.35 (>) 40.32

65.011 (>) 64.077

71.253 (>) 71.252

76.509 (>) 76.409

33.21 (>) 33.20

42.830 (>) 42.829

55.505 (>) 55.055

81.011 (>) 81.003

12.5 (>) 12.05

16.339 (>) 15.339

TOTAL POINTS	NUMBER CORRECT
10	

LEVEL	UNIT	SKILL	PAGE
E	01	8	6

336

Circle the <u>largest</u> number in each set.

.84   (.90)   .79   4.5   (4.8)   4.0

(27.3)   20.3   23.7   18.09   18.003   (18.1)

16.552   16.553   (16.6)   9.01   9.225   (9.31)

.735   (.829)   .80   .731   .733   (.740)

For extra practice, do Page 14.

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	8	7

Circle the smallest number in each set.

.31   .25   (.244)   .09   .112   .13

7.116   7.109   7.305   2.9   3.1   3.2

4.773   4.709   4.777   6.309   6.311   6.302

.41   .016   .553   2.53   .978   1.327

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	8	8

Put each set of numbers in order from smallest to largest.

.853   .850   .859   .33   .4   .41

_.850_   ___   ___   ___   ___   ___

.117   .017   .113   9.116   9.6   .96

___   ___   ___   ___   ___   ___

8.5   8.05   8.005   .443   .405   .550

___   ___   ___   ___   ___   ___

.731   .730   .733   .2   .015   .013

___   ___   ___   ___   ___   ___

For extra practice, do Page 15.

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	8	9

339

Put each set of numerals in order from <u>smallest</u> to <u>largest</u>.

6.521	6.520	6.527	6.538	6.529	6.413
6.520	*6.521*	*6.527*	*6.413*	*6.529*	*6.538*

7.205	7.211	7.220	9.340	9.339	9.341
7.205	*7.211*	*7.220*	*9.339*	*9.340*	*9.341*

2.159	2.16	2.2	7.355	7.354	7.45
2.159	*2.16*	*2.2*	*7.354*	*7.355*	*7.45*

8.109	8.112	8.101	1.035	1.036	1.1
8.101	*8.109*	*8.112*	*1.035*	*1.036*	*1.1*

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	8	10

Put each set of numbers in order from <u>largest</u> to <u>smallest</u>.

.351	.355	.309		.075	.125	.331
.355	.351	.309		.331	.125	.075

7.36	7.37	7.32		7.059	7.061	7.06
7.37	7.36	7.32		7.061	7.06	7.059

12.5	12.09	12.12		.001	.111	.1
12.5	12.12	12.09		.111	.1	.001

80.3	81.3	80.31		.446	.406	.464
81.3	80.31	80.3		.464	.446	.406

For extra practice, lo Page 16.

TOTAL POINTS	NUMBER CORRECT
8	.

LEVEL	UNIT	SKILL	PAGE
E	01	8	11

341

CET I

Write each set of numbers in order from smallest to largest.

.134   .738   .205

——   ——   ——

25.326   21.593   35.111

——   ——   ——

3.514   3.145   3.415

——   ——   ——

9.72   9.32   9.12

——   ——   ——

6.48   5.19   5.48

——   ——   ——

.236   .326   .623

——   ——   ——

C I R C L E C O R R E C T B O X	TL. PTS.	
	6	100%
	NO. OF PTS.	%
	5	83
	4	67
	3	50
	2	33
	1	17

LEVEL	UNIT	SKILL	PAGE
E	01	8	12

Put $>$ or $<$ in the circles.

Why is .09 smaller than .9? To find out, rename them as fractions.

$$.09 = \frac{9}{100} \text{ and } .9 = \frac{9}{10} = \frac{(9 \times 10)}{10 \times 10} = \frac{90}{100}$$

Then $\quad \frac{9}{100} < \frac{90}{100}$ or .09 < .9

.11 $\;>\;$ .10 $\qquad\qquad$ .76 $\;<\;$ .80

$(\frac{11}{100})$ $\qquad$ $(\frac{10}{100})$

.76 $\;>\;$ .75 $\qquad\qquad$ .2 $\;>\;$ .02

.09 $\;>\;$ .08 $\qquad\qquad$ .07 $\;>\;$ .04

.30 $\;>\;$ .29 $\qquad\qquad$ .50 $\;<\;$ .60

.17 $\;<\;$ .18 $\qquad\qquad$ .43 $\;<\;$ .44

.13 $\;<\;$ .15 $\qquad\qquad$ .61 $\;>\;$ .60

.15 $\;<\;$ .17

TOTAL POINTS	NUMBER CORRECT
13	

LEVEL	UNIT	SKILL	PAGE
E	01	8	13

Circle the <u>largest</u> number in each set.

.253

1.785

(1.0)

1.800

.775

1.729

29.05

3.57

(29.50)

.357

29.005

(357.0)

(.735)

(.541)

.079

.451

.113

.154

2.55

76.35

2.50

76.351

(2.6)

(76.352)

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	8	14

344

Put each set of numbers in order from <u>smallest to largest</u>.

.537	.573	.533	.1	.5	.40
.533	.537	.573	.1	.5	.40

2.91	2.11	2.90	.35	.47	.21
2.11	2.40	2.91	.21	.35	.47

7.065	7.06	7.05	7.5	4.09	2.3
7.05	7.06	7.065	2.3	4.09	7.5

2.111	2.115	2.12	1.76	1.77	1.768
2.111	2.115	2.12	1.76	1.768	1.77

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	8	15

Put each set of numbers in order from largest to smallest.

.076	1.2	1.53	.209	.201	.2
_1.53_	_1.2_	_.076_	___	___	___

7.531	7.315	7.153	5.50	5.51	5.52
___	___	___	___	___	___

2.051	2.11	2.06	76.819	76.81	76.811
___	___	___	___	___	___

.573	.574	.58	.597	.599	.598
___	___	___	___	___	___

TOTAL POINTS	NUMBER CORRECT
8	

LEVEL	UNIT	SKILL	PAGE
E	01	8	16

CET II

Write each set of numbers in order from smallest to largest.

.026   .206   .620

____   ____   ____

3.471   4.731   1.374

____   ____   ____

2.212   2.122   2.221

____   ____   ____

60.003   6.003   60.030

____   ____   ____

8.320   8.032   8.230

____   ____   ____

.473   .743   .374

____   ____   ____

CIRCLE CORRECT BOX	TL. PTS.	
	6	100%
	NO. OF PTS.	%
	5	83
	4	67
	3	50
	2	33
	1	17
	.	

LEVEL	UNIT	SKILL	PAGE
E	01	8	17

LEVEL E, NUMERATION, SKILL 8

OBJECTIVE: Orders a collection of pure and mixed decimal fractions. Decimal part to thousandths. Whole numbers to 100.

STANDARD TEACHING SEQUENCE

Page		Supplementary Material
1.	Puts > or < between mixed and pure decimals to show relationship; uses number line.	
2.	Puts > or < between two-digit pure decimals.	13
3.	Puts > or < between mixed decimals.	
4.	Puts > or < between mixed decimals.	
5.	Puts > or < between mixed decimals.	
6.	Puts > or < between mixed decimals.	
7.	Circles largest number in set of three.	14
8.	Circles smallest number in set of three.	
9.	Rewrites sets of three decimals in order from smallest to largest.	15
10.	Rewrites sets of three decimals in order from smallest to largest.	
11.	Rewrites sets of three decimals in order from the largest to the smallest.	16
12.	CET I.	
	CET II.	17

Circle pages that are to be done.

This is the Posttest which has been completed by Eileen and corrected by the Aide.

Analyze the Posttest results and make a decision about Eileen's mastery of this unit.

Complete the record of Eileen's work in the E-Num. unit by entering the required information on the first Prescription Sheet.

349

SCHOOL CODE

NAME _Eileen O'Brien_

NUMBER _9999_   CLASS _5_   _Ln. 8_

MATHEMATICS

Post-Test

individually prescribed instruction

LEVEL E

NUMERATION (01)

TOTAL PTS. $\frac{47}{52}$

90 %

DEVELOPMENTAL EDITION

Directions: Fill in the blanks in each row, counting forward by 1's.

86,978   _86,979_ ,   _86,980_ ,   _86,981_

400,083   _400,084_ , _400,085_,   _400,086_

16,999   _17,000_ ,   _17,001_ ,   _17,002_

982,435   _982,436_ , _982,437_,   _982,438_

999,997   _999,998_ , _999,999_ , _1,000,000_

Directions: Circle all of the even numbers.

(178)   999   1,001   (42)   583   (776)

Directions: Put an X on the word that is the correct ending for each sentence.

The sum of two odd numbers is . . .

e̶v̶e̶n̶   odd

The difference between two odd numbers is . . .

e̶v̶e̶n̶   odd

The product of two odd numbers is . . .

even   o̶d̶d̶

The product of an odd and an even number

e̶v̶e̶n̶   odd

Directions: Round each of the numbers to the nearest hundred.

499 _____ *500*

620 _____ *600*

30,093 _____ *30,000* X

42,651 _____ *42,700*

Directions: Estimate the answers to the problems below by first rounding the numbers to the nearest ten and then adding or subtracting. Circle the correct estimated answer.

How much does 34 yards plus 42 yards equal?

75 yards   80 yards   60 yards   (70 yards)

Jane lost 26 of her 47 paper clips. How many paper clips did Jane have left?

20   (30)   60   80   X

Tom had 19 cookies and ate eight. How many cookies did he have left?

16   (10)   30   0

621 plus 1,368?

(1,990)   2,010   1,980   1,000

Directions: Write the standard numerals for the following number words..

six hundred seventy-three	_673_
five thousand eleven	_5,011_
one thousand seven hundred twenty-nine	_1,729_
four thousand three	_4,003_

Directions: Write the following numbers in words.

341   _three hundred forty-one_

5,006   _five thousand six_

4,612   _four thousand six hundred twelve_

8,502   _eight thousand five hundred two_

Directions: Write the equivalent decimal fraction for each of these fractions.

$$\frac{6}{10} = \underline{\hspace{0.3em}.6\hspace{2em}}$$

$$4\frac{8}{10} = \underline{\hspace{0.5em}4.8\hspace{2em}}$$

$$92\frac{7}{100} = \underline{\hspace{0.5em}92.07\hspace{1.5em}}$$

$$432\frac{61}{100} = \underline{\hspace{0.5em}432.61\hspace{1.5em}}$$

Directions: Write the equivalent fraction for each of these decimal fractions.

$$.8 = \underline{\hspace{1em}\frac{8}{10}\hspace{1.5em}}$$

$$.79 = \underline{\hspace{1em}\frac{79}{100}\hspace{1.5em}}$$

$$63.1 = \underline{\hspace{1em}63\frac{1}{10}\hspace{1.5em}}$$

$$96.04 = \underline{\hspace{1em}96\frac{4}{100}\hspace{1.5em}}$$

Directions: Write the decimal fraction for the number words.

three and forty-six hundredths $\underline{3.46}$

nine and two hundredths $\underline{9.002}$ X

five and six hundred five thousandths $\underline{5.605}$

Directions: Write these decimal fractions in number words.

7.623 $\underline{\text{seven and six hundred twenty three thousandths}}$

4.85 $\underline{\text{four and eighty-five hundredths}}$

Directions: Write these decimal numbers as mixed fractions.

5.47 $5\frac{47}{100}$

32.891 $32\frac{891}{1000}$

87.03 $87\frac{3}{100}$

Directions: Write these decimal numbers as common fractions.

7.3 $\frac{73}{10}$

6.145 $\frac{6145}{10000}$ X

9.27 $\frac{927}{100}$

Directions: Draw an arrow to show the location on the number line of each decimal number.

2.5

36.75

Directions: Write each row of numbers in order from the smallest to the largest.

			smallest		largest

6.09   6.90   0.69

0.69	6.09	6.90

smallest   largest

.82   .082   8.2

.082	.82	8.2

smallest   largest

47.5   4.75   4.07

4.07	4.75	47.5

smallest   largest

1.330   13.30   .133   X

.33	1.330	13.30

smallest   largest

.957   95.7   9.57

.957	9.57	95.7

MATHEMATICS PRESCRIPTION SHEET

| SCHOOL STAMP | U. S. 2-3 | STUDENT NAME //////////////// | STUDENT NUMBER U. S. | 4 | 5 | 6 | 7 |

| GRADE U. S. | 9 | ROOM /////// | UNIT | U. S. | 10 | 11 | 12 |

UNIT DATES

UNIT BEGAN		U. 13-16
UNIT ENDED		U. 17-20
DAYS WORKED*		U. 21-22

SCHOOL CALENDAR

BEGAN		U. 23-25
ENDED		U. 26-28
Worked	///////	

	SKILL BOOKLETS								CURRICULUM TEST				SC'S INIT.	DAYS* WORKED IN SKILL	NOTES
	DATE ➤ PRES. S. 13-16	PRES. ➤ INIT. S. 17-19	SKILL ➤ NO. S. 20-21	↓ PAGE NO. S. 22-57	↓ INST. TECH CODES S. 58-71	SCORE	MAX. POINTS		PART 1		PART 2				
									SCORE	% S. 72-73	SCORE	% S. 74-75		S. 76-77	
1															
2															
3															
4															
5															
6															
7															
8															
10															
11															
12															
13															
14															
15															
16															
17.															
18															

CODES	INSTRUCTIONAL TECHNIQUE
01	TEACHER TUTOR
02	PEER TUTOR
03	SMALL GROUP (2-10)
04	LARGE GROUP (11-UP)
05	SEMINAR
06	CURR. TEXTS
07	OTHER TEXTS
08	FILM STRIPS
09	RECORDS, TAPES
10	RESEARCH
11	TUTOR OF OTHERS
12	OTHERS

| OVERFLOW |
| U. & S. 79 |

EYPUNCH SAMPLE
L. PRE % | POST. %
.31 U. 32-33 | U. 34-35 TO 78
80 | 95

PRE AND POST TEST SCORES

ENTER SKILL NUMBER ▼	ENTER POINTS PER SKILL	PRE	% ▼	POST	% ▼	POST	% ▼	POST	% ▼
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									

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MATHEMATICS PRESCRIPTION SHEET

| SCHOOL STAMP | U. S. 2-3 | STUDENT NAME ///////// | STUDENT NUMBER U. S. | 4 | 5 | 6 | 7 |

| GRADE U. S. | 9 | ROOM /////// | UNIT | U. S. | 10 | 11 | 12 |

UNIT DATES

UNIT BEGAN		U. 13-16
UNIT ENDED		U. 17-20
DAYS WORKED*	U. 21-22

SCHOOL CALENDAR

BEGAN		U. 23-25
ENDED		U. 26-28
Worked		/////

		SKILL BOOKLETS							CURRICULUM TEST				SC'S INIT.	DAYS* WORKED IN SKILL	NOTES
	DATE PRES. ➤ S. 13-16	PRES. INIT. ➤ S. 17-19	SKILL NO. ➤ S. 20-21	PAGE NO. ↓ S. 22-57	INST. TECH CODES ↓ S. 58-71	SCORE	MAX. POINTS	PART 1 SCORE	PART 1 % S. 72-73	PART 2 SCORE	PART 2 % S. 74-75		S. 76-77	
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														

CODES	INSTRUCTIONAL TECHNIQUE
01	TEACHER TUTOR
02	PEER TUTOR
03	SMALL GROUP (2-10)
04	LARGE GROUP (11-UP)
05	SEMINAR
06	CURR. TEXTS
07	OTHER TEXTS
08	FILM STRIPS
09	RECORDS, TAPES
10	RESEARCH
11	TUTOR OF OTHERS
12	OTHERS

OVERFLOW
U. & S. 79

KEYPUNCH SAMPLE

PRE % 32-33, U. 34-35 POST %
.31 80 95
L TO 78

PRE AND POST TEST SCORES

ENTER SKILL NUMBER ▼	ENTER POINTS PER SKILL	PRE	% ▼	POST	% ▼	POST	% ▼	POST	%
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									

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MATHEMATICS PRESCRIPTION SHEET

PAGE: OF

| SCHOOL STAMP | U. S. 2-3 | STUDENT NAME ///////// | STUDENT NUMBER U. S. | 4 | 5 | 6 | 7 |

| GRADE U. S. | 9 | ROOM /////// | UNIT | | U. S. | 10 | 11 | 12 |

UNIT DATES			SCHOOL CALENDAR		
UNIT BEGAN		U. 13-16	BEGAN		U. 23-25
UNIT ENDED		U. 17-20	ENDED		U. 26-28
DAYS WORKED*		U. 21-22	Worked	/////	

	SKILL BOOKLETS							CURRICULUM TEST				SC'S INIT.	DAYS* WORKED IN SKILL	NOTES
	DATE PRES. S. 13-16	PRES. INIT. S. 17-19	SKILL NO. S. 20-21	PAGE NO. S. 22-57	INST. TECH CODES S. 58-71	SCORE	MAX. POINTS	PART 1		PART 2				
								SCORE	% S. 72-73	SCORE	% S. 74-75		S. 76-77	
1														
2.														
3														
4														
5														
6														
7														
8														
10														
11														
12														
13														
14														
15														
16														
17.														
18														

CODES	INSTRUCTIONAL TECHNIQUE
01	TEACHER TUTOR
02	PEER TUTOR
03	SMALL GROUP (2-10)
04	LARGE GROUP (11-UP)
05	SEMINAR
06	CURR. TEXTS
07	OTHER TEXTS
08	FILM STRIPS
09	RECORDS, TAPES
10	RESEARCH
11	TUTOR OF OTHERS
12	OTHERS

OVERFLOW
U. & S. 79

KEYPUNCH SAMPLE
PRE % U. 32-33, POST. % U. 34-35
-31 80 95 TO 78

PRE AND POST TEST SCORES									
ENTER SKILL NUMBER ▼	ENTER POINTS PER SKILL	PRE	% ▼	POST	% ▼	POST	% ▼	POST	% ▼
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									

MATHEMATICS PRESCRIPTION SHEET

PAGE: OF

SCHOOL STAMP	U. S. 2-3

STUDENT NAME

STUDENT NUMBER — U. S. | 4 | 5 | 6 | 7 |

GRADE U. S. | 9 | ROOM   UNIT   U. S. | 10 | 11 | 12 |

UNIT DATES

UNIT BEGAN		U. 13-16
UNIT ENDED		U. 17-20
DAYS WORKED*		U. 21-22

SCHOOL CALENDAR

BEGAN	U. 23-25
ENDED	U. 26-28
Worked	

#	SKILL BOOKLETS								CURRICULUM TEST					SC'S INIT.	DAYS* WORKED IN SKILL	NOTES
	DATE PRES. S. 13-16	PRES. INIT. S. 17-19	SKILL NO. S. 20-21	PAGE NO. S. 22-57	INST. TECH CODES S. 58-71	SCORE	MAX. POINTS	PART 1 SCORE	PART 1 % S. 72-73	PART 2 SCORE	PART 2 % S. 74-75		S. 76-77	
1														
2														
3														
4														
5														
6														
7														
8														
10														
11														
12														
13														
14														
15														
16														
17														
18														

CODES	INSTRUCTIONAL TECHNIQUE
01	TEACHER TUTOR
02	PEER TUTOR
03	SMALL GROUP (2-10)
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10	RESEARCH
11	TUTOR OF OTHERS
12	OTHERS

OVERFLOW
U. & S. 79

KEYPUNCH SAMPLE — PRE % U. 32-33, 31 — POST. % U. 34-35 — 80 — 95 — TO 78

PRE AND POST TEST SCORES

ENTER SKILL NUMBER	ENTER POINTS PER SKILL	PRE	%	POST	%	POST	%	POST	%
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									
X									

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MATHEMATICS PRESCRIPTION SHEET

SCHOOL STAMP	U. S. 2-3

STUDENT NAME

STUDENT NUMBER U. S. | 4 | 5 | 6 | 7 |

GRADE U. S. | 9 | **ROOM**   **UNIT**   U. S. | 10 | 11 | 12 |

UNIT DATES		
UNIT BEGAN		U. 13-16
UNIT ENDED		U. 17-20
DAYS WORKED*	U. 21-22

SCHOOL CALENDAR		
BEGAN		U. 23-25
ENDED		U. 26-28
Worked		

	SKILL BOOKLETS							CURRICULUM TEST				SC'S INIT.	DAYS* WORKED IN SKILL	NOTES
	DATE PRES. S. 13-16	PRES. INIT. S. 17-19	SKILL NO. S. 20-21	PAGE NO. S. 22-57	INST. TECH CODES S. 58-71	SCORE	MAX. POINTS	PART 1 SCORE	% S. 72-73	PART 2 SCORE	% S. 74-75		S. 76-77	
1														
2														
3														
4														
5														
6														
7														
8														
10														
11														
12														
13														
14														
15														
16														
17														
18														

CODES	INSTRUCTIONAL TECHNIQUE
01	TEACHER TUTOR
02	PEER TUTOR
03	SMALL GROUP (2-10)
04	LARGE GROUP (11-UP)
05	SEMINAR
06	CURR. TEXTS
07	OTHER TEXTS
08	FILM STRIPS
09	RECORDS, TAPES
10	RESEARCH
11	TUTOR OF OTHERS
12	OTHERS

OVERFLOW
U. & S. 79

KEYPUNCH SAMPLE

PRE % U. 32-33 .80 | POST. % U. 34-35 .95 | -31 TO 78

PRE AND POST TEST SCORES										
ENTER SKILL NUMBER	ENTER POINTS PER SKILL	PRE	%	POST	%	POST	%	POST	%	POST	%
X										
X										
X										
X										
X										
X										
X										
X										
X										
X										
X										
X										
X										
X										
X										
X										

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Section V

PLANNING TIME

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Suggested setting: 1. Individual work

2. Instructional team

This section is designed to introduce you to the way IPI teachers work together as an instructional team to individualize instruction for their students.

PLANNING TIME

The teacher:

1. Meets with his instructional team to initiate planning sessions.

   a. Discusses practices and procedures for IPI planning sessions as described in this section.

   b. Revises, deletes and adds to these practices and procedures, with the team, to establish a model of a planning session for the group. (The model will specify organizational details, basic requirements, and ground rules.)

   c. Obtains copy of information developed in (b).

   d. Agrees to details (time, chairman, etc.) for next planning session.

2. Participates in planning sessions.

   a. Provides specific descriptive data about IPI students and IPI classes.

   b. Cooperates in assigning students to teachers for the week.

   c. Identifies and contributes to resolving IPI instructional problems.

   d. Accepts and implements decisions of IPI team.

   e. Acts as chairman of IPI team as needed.

   f. Reports and suggests procedures for smoother operation of IPI.

   g. Confines discussion to the topics of the session as stated in the agenda.

PLANNING TIME

IPI works to the best advantage of students when their teachers plan together as an instructional team. Time for planning is scheduled before, during or after the school day. During this time, a particular group of teachers holds planning sessions to collaborate in making instructional decisions about the students assigned to them.

In some IPI schools, planning time also includes regularly scheduled time for prescription writing. When this is done, usually 1-3 teachers work together to develop prescriptions for selected students. This involves some consultation among the teachers as each works on writing prescriptions. Since the practice of scheduling prescription writing time varies from school to school depending upon staff size and time available, and since guidelines for developing a prescription have been discussed in a previous section, this discussion will focus on planning sessions.

The planning sessions give the teachers, as a group, an opportunity to:

1. Review the progress of each student in the assigned classes.

2. Organize students, teachers, and aides for IPI instruction.

3. Share instructional problems with other teachers and to solve them by using the professional experience and thinking of the team.

4. Identify and resolve operational difficulties arising from IPI materials, physical facilities and mechanics.

5. Continue their study of individualized instruction and IPI.

Let's look at a planning session held at one IPI school to see how
this time is used to accomplish these purposes.

In one school, four third-grade teachers meet every Monday at 1:15 p.m.
for 45 minutes to discuss their IPI math classes. The principal and float-
ing teacher join them. Since time is limited, the group adheres closely
to an agenda prepared by the principal or some other member of the group.
Two items always appear on the agenda: review of students' progress, and
organization and assignments for instruction. Additional items are added
as needed from week to week. This week the agenda looks like this:

IPI Planning Session

Williams Elementary School

Grade __3__   Chairman _Marie Brown_   Date _10/31/67_

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1. Review of flow charts.

2. Instructional regrouping and teacher assignment.

3. Excessive amount of classtime spent by students waiting for
   teacher's help.

4. Demonstration of some teacher-made math games related to
   area of Numeration.

5. Next planning session.

Decisions: (what, who, how, when)

Reviewing flow charts is the first item on the agenda. Each class is listed on a flow chart which locates each student in the Continuum at that date:

Williams Elementary School

Teacher *Janet Hicks*

Grade **3**

Student	Date 10/84	Date 10/91		
1. Anderson, Bob	B—Num.—1	B—PV—Post		
2. Arsen, William	C—PV—3	C—Add.—3		
3.	.	.		
4.	.	.		
5.	.	.		
6.	.	.		
.	.	.		
.	.	.		
.	.	.		
.	.	.		
n	C—Sub.—Pre	C—Sub.—Post		

In addition, the students on the particular grade level are listed on one flow chart used by the principal and floating teacher. This chart represents the distribution of the students on that grade level in the Continuum by unit skill:

Level	Unit Skill	No. of Students
B	Num. 1	4
	3	2
	PV 3	2
	.	.
	.	.
	.	.
	Geom. 2	1

The information on this chart summarizes the progress of all the students assigned to the instructional team and is used by the principal and floating teacher to help the teachers group students for instruction.

With these charts, the IPI team is able to follow each student as he moves through the Continuum. Further, inconsistencies or undue delays in any student(s)' progress become evident immediately and the student(s) are singled out for additional attention. After this review, the listings are considered for the purposes of assigning students to teachers for IPI instruction for the following week.

At this planning session, the teachers decide all but five students will remain with their own teachers. These teachers will write the pre-scriptions for the students in their classes. It is decided that the

five students will be assigned to one of the teachers for three days. These students are all ready to take either a pretest or a posttest, and they will need help in reading directions. This teacher will also write their prescriptions during this time. Within the week, each student will be returned to his own class as soon as he is working on a prescription in a new skill.

In arriving at this decision, these teachers followed <u>some general guidelines for assigning students based on individual needs</u> to teachers for IPI classes:

1. If any students are working on the same unit skill, they are sometimes assigned to the same teacher. This is student-assignment based upon skill achievement. In this manner, the teacher to whom they are assigned can concentrate on developing <u>individual</u> prescriptions within a narrower range of the Continuum.

2. If any students are working on similar materials and equipment or sharing materials and equipment, they are assigned to the same teacher who will guide and supervise them as each carries out his <u>individual</u> prescription.

3. If any student has a particular emotional need or some personal-social characteristic that is best served by assignment to a particular teacher or with a particular peer group, he is so assigned if possible.

4. If any student requires a great deal of special help in some behavior(s) related to working in IPI math (such as reading directions, working independently, study skills, etc.), he is

assigned to a teacher particularly skilled in handling this area

a/o to a group small enough to permit direct teacher guidance

of the individual.

The next item on the agenda (the amount of time that students spend
waiting for teacher-help) was placed there at the request of one teacher
who finds herself swamped by requests from students for help during class-
time. The teacher describes the situation in her class to the others in
the IPI team. As they discuss the problem, the teacher realizes she has
encouraged this dependency by the kind of prescriptions she has been writ-
ing and by the information-giving role she has been using. The discussion
results in three concrete suggestions:

1. Vary Instructional Techniques in prescriptions; use #2, 6,
   10, and 11 in particular.

2. Inform students that they are to signal for teacher-help only
   after they've made every attempt to work out the problem them-
   selves.

3. Use guiding questions and provide cues related to the student's
   problem instead of giving the final answer.

There are other suggestions, but the teacher selects these three to be
tried next week. The suggestions are recorded on the agenda under Deci-
sions.

For the demonstration of math games, the teacher who made them dis-
tributes them to the others. They manipulate and play with the games,
and discuss their use in relation to specific unit skills in Numeration.
The games are given a code number to correspond to the unit skills they
teach.

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Then topics for the agenda of the next planning session are listed. Review of flow charts and student assignments are automatically listed. The principal asks that they include a discussion about needed revisions of IPI worksheets. The rest of the agenda is left open for addition of topics as the week goes on. It is decided that the principal will chair the next planning session and will complete the agenda for the group.

THE FOLLOWING MATERIALS OFFER A FRAMEWORK FOR DEVELOPING A MODEL
OF A PLANNING SESSION FOR YOUR SCHOOL. USE THEM TO HELP YOURSELF
STRUCTURE YOUR FIRST PLANNING SESSIONS. CONTINUE USING THEM TO
CHECK THE DEVELOPMENT OF PLANNING SESSIONS.

1. Read the following pages:

    a. Some Organizational Details of IPI Planning Sessions

    b. Basic Requirements for a Planning Session

    c. Suggested Ground Rules for a Planning Session

    d. General Guidelines for Assigning Students to
       Instructional Groups in IPI

2. Arrange to meet with the others who will be on the same instruc-
   tional team with you.

    a. Ask the principal to schedule a meeting to be held
       some time during this session for your team, and to
       announce the names of the team members.

    b. Ask the team members to prepare for this meeting by
       reading this section.

3. Meet with the instructional team as scheduled.

    a. Select a temporary chairman.

    b. Review the materials you have read.

    c. Revise, delete and add to them to make them fit the
       needs of the children in your school.

4. Record this information and arrange to have a copy given to each
   team member.

5. If time permits, start an agenda for the meeting.

6. Designate the chairman for the next meeting and set a time.

7. Adjourn and continue other work in progress.

Some Organizational Details of IPI Planning Sessions

<u>Time</u>: Usually 45-60 minutes scheduled once a week.

<u>IPI Instructional Team</u> (about 4-6 professionals)

Classroom teachers of one grade level or adjacent grade levels who teach IPI Math at the same time.

Building principal

Floating teacher* (A teacher assigned to work with this team for a specified amount of time during the week. Usually this teacher is not responsible for a register.)

IPI Coordinator* (A supervisor or assistant principal assigned the overall program responsibility of IPI in the school.)

*These are optional positions in an IPI school. Such considerations as budget, pupil-teacher ratio, administrator's workload, etc. are used to decide whether or not these positions should be created.

<u>Subject area</u>

Mathematics

Basic Requirements for a Planning Session

Agenda:

1. Completed by chairman and in the hands of the IPI team before the meeting.

2. Indicates grade, date, chairman, topics, and a space for decisions.

Flow charts:

1. Lists students by class and indicates the unit skill placement for each.

2. Distribution of students on a grade level by unit skill.

Teacher participation:

1. Provides specific descriptive data about IPI students and IPI classes.

2. Cooperates in assigning students to teachers for the week.

3. Identifies and contributes to resolving IPI instructional problems.

4. Accepts and implements decisions of IPI team.

5. Acts as chairman of IPI team as needed.

6. Reports and suggests procedures for smoother operation of IPI.

7. Confines discussion to the topics of the session as stated in the agenda.

Principal's participation:

1. Preparation for planning session:

    a. Observes and teaches in IPI classes.

    b. Keeps a record of the operation of the program, e.g. materials, aides, teacher-student relations, etc.

    c. Reviews prescriptions or a sampling of prescriptions for such things as length, accuracy, variations, etc.

    d. Reviews flow charts.

    e. Checks that all arrangements for the planning sessions have been made.

2. Participates in the planning session (see: Teacher participation) and makes a contribution of unique data as principal of the school.

3. Provides administrative support for all planning sessions, and implements decisions made at planning sessions.

4. Maintains overall responsibility for planning sessions:

    a. Guides continuity of sessions.

    b. Identifies needs for a variety of inservice training experiences.

    c. Establishes and reinforces basic ground rules for planning sessions.

    d. Assists ad hoc chairman of planning session.

Suggested Ground Rules for a Planning Session

1. Stick to the agenda.

2. Offer an alternate procedure or a tentative solution (no matter how good or bad) with every criticism or problem that is stated.

3. Work toward a consensus or general agreement on decisions made.

4. Live by the decisions made at planning sessions.

5. Participate in the instructional decision-making for <u>all</u> the students assigned to the teachers in the IPI team.

6.

7.

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ADD YOUR SUGGESTIONS TO THIS LIST.

DISCUSS THE LIST WITH THE OTHERS ON
YOUR INSTRUCTIONAL TEAM.

DECIDE UPON WHICH ONES YOU WILL USE
IN YOUR PLANNING SESSIONS.

General Guidelines for Assigning Students
to Instructional Groups in IPI

1. If any students are working on the same unit skill, or similar unit skills, they are sometimes assigned to the same teacher. This is student-assignment based upon skill achievement. In this manner, the teacher to whom they are assigned can concentrate on developing _individual_ prescriptions within a narrower range of the Continuum.

2. If any students are working on similar materials and equipment or sharing materials and equipment, they are assigned to the same teacher who will guide and supervise them as each carries out his _individual_ prescription.

3. If any student has a particular emotional need or some personal-social characteristic that is best served by assignment to a particular teacher, peer tutor or particular peer group, he is so assigned if possible.

4. If any student requires a great deal of special help in some behavior(s) related to working in IPI math (such as reading directions, working independently, study skills, etc.), he is assigned to a teacher particularly skilled in handling this area a/o to a group small enough to permit direct teacher guidance of the individual.