THE OBJECTIVES OF THIS MANUAL ARE TO PROVIDE GENERAL INFORMATION ABOUT INDIVIDUALIZED INSTRUCTION AND THE INDIVIDUALLY PRESCRIBED INSTRUCTION (IPI) MATHEMATICS PROGRAM, TO FAMILIARIZE THE USER WITH THE MATERIALS USED IN IPI MATHEMATICS, TO PROVIDE A CHANCE TO PRACTICE NECESSARY SKILLS, AND TO GIVE SUGGESTIONS FOR MAKING THE JOB OF THE IFI AIDE EASIER. THE USE OF THE IPI PLACEMENT TESTS, PRETESTS, CURRICULUM-EMBEDDED TESTS, POSTTESTS, AND STANDARD TEACHING SEQUENCE BOOKLET IS COVERED IN SOME DETAIL. EXAMPLES OF COMPLETED FORMS ILLUSTRATE THE TEXT. (JY)
AIDING IPI

A Manual for Aides in IPI Mathematics
ERRATA

p.38 Add: 12.b

p.40 No. 4 - "Jim Bowen" should be changed to "Lillian Ching".

p.79 Prescription Sheet after p.4, instructional code should be 08, "Seeing Fractions".

p.80 No.6 Change "Skill 1" to "Skill 4". Answer should be "2 and 10".

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AIDING IPI

A MANUAL FOR TEACHER AIDES IN IPI MATHEMATICS

by

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OBJECTIVES OF THE AIDE'S MANUAL

This manual is designed to help you as an aide in IPI schools to become familiar with as many aspects of your job as possible before actually going to work.

The manual will:

1. Give you some general information about individualized instruction and the IPI mathematics program.

2. Familiarize you with the material which is used in IPI Mathematics.

3. Give you practice in the kinds of tasks you will perform when using the IPI record sheets.

4. Give you some suggestions for making your job easier.
HOW TO USE THIS MANUAL

Since this book has been written to teach you the skills needed in working as an IPI aide, it has been set up as a small course. Certain things have been included which, it is hoped, will help you to check yourself on how well you are learning the material.

Each section will be introduced with a set of guide questions (see p.3). They are usually rather broad questions which you should be able to answer when you finish working through the manual.

At the end of each section there is a posttest (see p.18) which is a test that comes after material has been taught. The results can tell you what areas you may be unsure about so you can go back and review if necessary. If you find you can answer all the questions you are ready to move on to the next section.

Remember, all of the tests are for your own use. You need not even answer questions in the exact word given, as long as the idea is the same. After taking each test, use your own judgment as to how you use the results.

The manual will be most useful to you if you can gather a packet of IPI math materials to use as you work through each section. You should include one of each type of test and an STS booklet. All should relate to the same unit. For example: Level C Placement Test, C-Addition Pretest, C-Addition, Skill I, STS, C-Addition Posttest, Mathematics Placement Profile, Mathematics Student Profile and Mathematics Prescription Sheet.

If school is in session at the time when you are using the manual it may be possible for you to work with materials children are actually using after you have gone through each section. For example: When you finish the section on Pretests, spend some time scoring student's Pretests, and so on.

This volume is concerned with IPI Mathematics. Other manuals will help you with the materials used in other IPI subject areas.
INTRODUCTION

In order to understand the aide's role in an IPI school it may be helpful to have some background information. This section will answer the following questions:

What is individualized instruction?
What is IPI?
What do some of the IPI terms mean?
What is the role of the aide in IPI?
What is the role of the teacher in IPI?
What are the steps in Individually Prescribed Instruction?
How is the IPI Mathematics continuum organized?

WHAT IS INDIVIDUALIZED INSTRUCTION?

When you look at a group of ten-year olds or a class of fifth graders, you can immediately see that not all children grow at the same rate of speed. We also know that a child who is the shortest at one age may grow up to be as tall as any of this classmates.
It is also true that all students of the same age or grade level do not learn at the same rate.

In addition, a particular child may be able to learn very rapidly in one subject, such as reading, and yet have a great deal of difficulty in another, perhaps math.

Over the years, teachers have tried to find ways to take care of the differences between children so that they will be able to learn to the best of their ability. Usually they have used various kinds of groupings, providing individual work only for very fast or very slow students who do not fit into other groups. Neither of these has made it possible for every child in a class to work as he needs to work.

Individualized instruction is a way of teaching that makes it possible for each individual student, rather than the group, to be the starting point for all decisions about teaching. The teacher starts with a particular student in mind and builds a learning program for him. Each student's program will differ from the others according to each student's individual needs. It is not intended for very slow or very fast students only, but for every child in the class.
WHAT IS IPI?

Individually Prescribed Instruction (IPI) is a specific system of individualization. It differs from other individualized programs in that it has a series of definite steps through which a student moves in order to increase his skill and knowledge of a subject.

These steps include:

Testing the student before he begins work (Placement Tests and Pretests);

Prescribing work for the student by the teacher from prepared materials (Standard Teaching Sequence) and supplementary materials on which he can work at his own pace (Prescription);

Testing from time to time while working on his prescription (Curriculum Embedded Tests);

Testing when he completes work in a unit (Posttests);

The use of tests throughout IPI makes it possible for each student to work only on the skills which he needs. The tests are a way of diagnosing his learning needs so that he may be given the work which will fit those needs in the best way possible.
WHAT DO SOME OF THE IPI TERMS MEAN?

You will be reading a number of words and phrases in IPI which may be unfamiliar to you. Some of these are listed below with their definitions. You will find that the meanings of the words will become clearer to you as you become familiar with IPI materials.

1. Continuum
   The entire IPI math program. It is arranged so that a student can continue working at his own pace from beginning to end.

2. Level
   The way IPI math materials are arranged from easy to difficult.
   (ex: A, B, C --- H)

3. Mathematics Area
   The sections of the IPI math continuum (ex: addition, subtraction, division). There are 13 areas.

4. Unit
   The divisions of IPI math by level and area.
   (ex: D-Addition)

5. Skill
   The operation a student must learn. Each IPI math unit contains several skills (ex: Counting from 1-100 without visual clues).

6. Objective
   The "goal" which a student works to reach. Each math unit has several objectives.

7. Prescription
   The plan for a student's work; it specifies the materials to use and how to use them.
8. Diagnostic tests
Tests to find out a student's strengths and weaknesses in a skill, unit, or area so that work can be prescribed only where needed.
IPI has Placement, Pretests, CETs and Posttests.

9. STS
The booklet of student materials (skillsheets) for each skill in every unit.

10. Manipulative devices
Materials which can be handled by children so that they can understand math better--(ex: counting discs, fractional parts, rods, or abacuses.)

11. Mastery
The point at which a student demonstrates on a test that he has learned the math skill; usually set at 85% but can be based on the teacher's decision.
WHAT IS THE ROLE OF THE AIDE IN IPI?

The IPI aide plays an important part in the smooth functioning of the program. This section will answer the following questions about your role:

Why is an aide necessary in an IPI School?
What is it like to be an aide in an IPI School?
What are an aide's responsibilities in an IPI School?

Why is an aide necessary in an IPI School?

One of the strengths of IPI is that it makes it possible for a teacher to know exactly where a student is in his progress through his assigned work. It is the aide who keeps the records of this progress.

You will note from the brief description of IPI on page 5, that there are a number of different kinds of written materials in the program. No two students go through these materials in exactly the same way, so it is vital that accurate records be kept.
What is it like to be an aide in an IPI school?

An aide's day can involve many kinds of work. The filmstrip Aiding IPI gives you a picture of what an aide's day is like in two IPI schools. You should view the filmstrip now, if you have not already done so.

What are the aide's responsibilities in an IPI school?

During IPI Classes:
   Score and record student skillsheets and tests that are not scored or recorded by the student.

   Assist student in obtaining materials in the materials center when necessary.

   Cooperate with the teacher, upon request, in facilitating classroom management.

Outside IPI Classes:
   Keep student folders current by completing the scoring and recording student work by completing record forms in the folder.

   Pull and file completed student prescriptions and tests as indicated by the teacher.

   Keep an up-to-date file of permanent student IPI records.

   Prepare any materials needed by the faculty for planning sessions (Class Flowchart, etc.)

   Keep a current set of scoring keys for use by aides, teachers and students.

   Organize, inventory, and order IPI instructional materials.
WHAT IS THE ROLE OF THE TEACHER IN IPI?

It is the teacher's job in IPI to prescribe the exact work which a student needs. The IPI teacher does more than mechanically assigning tests and skillsheets to students. Through her background in subject matter, knowledge of how children learn, and knowledge of each child in her class, the IPI teacher is able to make choices about how each child should work in IPI. To help her to make these decisions she uses the information gained from a child's work on IPI tests and skillsheets. Other sources of information are the school records and classroom observation.
Once the decisions are made concerning which skillsheets or supplementary materials to assign and what method of instruction should be used, the teacher writes the prescription for the student's work on the Prescription Sheet. This sheet becomes an important two-way communication link between the student and the teacher. The teacher communicates to the student the choices made by listing: the unit and unit skills that have been assigned to the student; specific tests to be taken; particular skillsheets to be completed; and the Instructional Techniques to be used to bring about mastery of the skills. In return, information about student progress is communicated back to the teacher in the form of skillsheet scores and test results.

The student is able to read his prescription and move ahead on his own. The aide helps the student and the teacher by helping him obtain the prescribed materials and by scoring and recording his work.

Individually Prescribed Instruction (IPI), then, is a framework within which a teacher can individualize instruction. IPI is also the prepared materials to help in the task. The teacher's job entails using many resources in order to make the most effective use of IPI as a way of teaching.
Sometimes scores and records his own work except for tests.

Kept up to date by aide who; Reorders when necessary. Keeps current files.

**IPI RECORD SYSTEM**
- Math Placement profile
- Student profile
- Math prescription sheet

Used by teacher to help her make decisions about prescriptions.

Used by student to find out what his prescription is.

**IPI DIAGNOSTIC TESTS**
- Placement Tests
- Pretests
- Curriculum Embedded Tests (CET's)
- Posttests

**IPI MATERIALS & EQUIPMENT**
- Over 4,000 worksheets (STS work books)
- Supplementary materials
- Manipulative devices
- Sound discs

**AIDE**
Scores and records student work.

**TEACHER**
Prescribes for student.

**STUDENT**
Works on prescription.

Figure 1
WHAT ARE THE STEPS IN INDIVIDUALLY PRESCRIBED INSTRUCTION?

Complete the following sentences using Fig. 1 to find the answers. Cover the area below the dotted line with a card or a piece of paper. Figure out the answer. Then, uncover to see if you have answered correctly.

1. The teacher__________ for the student, that is, assigns the exact work that he needs, choosing from IPI__________ and IPI__________.

Prescribes work; Diagnostic tests; Materials and equipment.

2. The four types of IPI diagnostic tests which the teacher uses are:
   a. -------------------------------  b. -------------------------------
   c. -------------------------------  d. -------------------------------

   a. Placement Tests           b. Pretests
   c. Curriculum Embedded Tests (CET's)  d. Posttests

3. The IPI material which the student uses most is__________

   Over 4,000 skillsheets (STS skillbooks)

4. The student then________________________, that is, he completes the work assigned by the teacher. This may take part of the class period or several periods.

Works on his prescription
5. The aide when the student has completed part or all of his prescription.

Scores and records the student's work

6. The record system for each student maintained by the aide consists of
a. Mathematics Placement Profiles:
b. Mathematics Prescription Sheets:
c. Student Profiles

7. The purpose of the record system is to
a. Help the teacher make decisions about prescriptions and
b. Help the student to find out about his prescription.

8. The student sometimes scores and records his own work except for his

Tests
HOW IS THE IPI MATHEMATICS CONTINUUM ORGANIZED?

Figure 2 represents the IPI mathematics continuum. The left hand column lists all of the mathematics areas in which students work. Across the top are the levels of difficulty from A through H. Each box represents a unit of work.

The unit circled would be referred to as "D-Division".

<table>
<thead>
<tr>
<th>MATHEMATICS AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMERATION (01)</td>
<td>12</td>
<td>10</td>
<td>7</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>PLACE VALUE (02)</td>
<td></td>
<td>3</td>
<td>5</td>
<td>9</td>
<td>7</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>ADDITION (03)</td>
<td>3</td>
<td>10</td>
<td>5</td>
<td>8</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SUBTRACTION (04)</td>
<td></td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
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<tr>
<td>MULTIPLICATION (05)</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>6</td>
<td>3</td>
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<td>7</td>
<td>7</td>
<td>8</td>
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<td>5</td>
<td>6</td>
<td>14</td>
<td>5</td>
<td>1</td>
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<td>MONEY (09)</td>
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<td>4</td>
<td>6</td>
<td>3</td>
<td>2</td>
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<td>2</td>
<td>10</td>
<td>9</td>
<td>5</td>
<td>3</td>
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<td>SYSTEMS OF MEASUREMENT (11)</td>
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<td>4</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>3</td>
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<td>GEOMETRY (12)</td>
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<td>9</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td></td>
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<tr>
<td>SPECIAL TOPICS (13)</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td></td>
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</tr>
</tbody>
</table>

Figure 2
The numerals in each box represent the number of skills in each unit (see example, p.15). There is a Standard Teaching Sequence (STS) booklet for each skill except for a very few which are done orally. A student does not work in every skill in every unit -- only those which he needs.

Shaded areas indicate units for which there are no skill sheets. Notice that at Level A, for example, a student works only in Numeration, Addition and Subtraction, and Fractions.

Theoretically every student would begin work in the first area (Numeration), at the lowest level (A). He would then move through every unit in the continuum (down each column until he reached the highest level in the last area (H-Spec. Top.).

However, the diagnostic tests make it possible for a student to begin work at whatever level he is ready for and to move through the continuum at his own pace. He can sometimes "master" a unit or skill by passing a test even through he has not actually worked in the IPI materials for that unit or skill. It is rare, then, that a student begins at the very beginning and works through every unit to the end.
In the box below are listed the seven skills which make up the unit, D-Division. There is an STS skill booklet for each of these. It is these skills that are represented by the box which is circled in Figure 2 on page 13.

Level D

1. Divides a set into subsets of equal number to solve simple grouping (division) problems.

2. Uses known multiplication facts to solve division problems related to products to 5 x 10, including 0 and 1.

3. Uses the terms "dividend", "divisor", and "quotient" to label parts of a division problem. Selects division as the proper operation.

4. Solves division problems through combinations of 50 ÷ 5 to demonstrate oral and written mastery (no pictures).

5. Divides 2, 3, 4 and 5 by 1 and into 0 and divides a number by itself.

6. Fills in frames for missing quotients. Divisors to 5, dividends to 50, also divisors to 9 when quotients are 5 or less.

7. Solves one-step work problem requiring division facts through 5 x 10.

Figure 3: Sample Unit from IPI Mathematics Continuum
Now that you have read through this material, how much do you remember? On the next page is your first IPI posttest. Think of it only as a way to help you to become aware of how much you remember about the important points in this section.

If you are uncertain about some items, refer to the page numbers beside each question for a review of the information. When you are satisfied that you understand the material, go on to the next section.
POSTTEST ON INDIVIDUALIZATION AND IPI

Part I - Match the terms with the definitions.

1. Continuum____ a. The sections of the IPI math continuum (ex: addition, subtraction, division). There are 13.

2. Level____ b. The entire IPI math program. It is arranged so that a student can continue working at his own pace from beginning to end.

3. Mathematics___ c. The divisions of IPI math by level and area. (Ex: D-Addition)
   Area

4. Unit____ d. The way IPI math materials are arranged from easy to difficult. (ex: A,B, C----H)

5. Skill____ e. The plan for a student's work; it specifies the materials to use and how to use them.

6. Objective____ f. The booklet of student materials (skillsheets) for each skill in every unit.

7. Prescription___ g. The "goal" which a student works to reach. Each math unit has several.

8. Diagnostic_____ h. Materials which can be handled by children so that they can understand math better. (ex: counting discs, fractional parts, rods, or abacuses)
   tests

9. STS____ i. The operation a student must learn. Each IPI math unit contains several. (ex: Counting from 1-100 without visual clues).

10. Manipulative____ j. The point at which a student demonstrates on a test that he has learned the math skill; usually set at 85% but can be based on the teacher's decision.
    devices

11. Mastery_____ k. Tests to find out a student's strengths and weaknesses in a skill, unit, or area so that work can be prescribed only where needed. IPI has Placement, Pretests, CET's and Posttests.

Note: If you are unsure about the answers to Part I of this Posttest, return to it when you have finished working through the entire manual. At that time you should have a thorough understanding of each of these terms.
Part II - Answer True or False

Choose the best answers. Refer back to the page numbers when you need more information about any item.

1. Individualized instruction is designed mainly for the few students in a class whose learning needs are so different that they demand special attention. (p.4)  
2. Individualized instruction is based on the idea that children learn at different rates of speed. (p.4)  
3. In an individualized classroom each student may be working at a different level. (p.4)  
4. IPI is different from other types of individualized instruction. (p.5)  
5. A Student in IPI must complete math prescription at the end of each math class. (p.13)  
6. An IPI aide's only job is to score and record student work. (p.9)  
7. The IPI aide's responsibilities include:  
   a. helping students obtain materials.  
   b. teaching children. (p.9)  
   c. keeping files. (p.9)  
   d. keeping track of materials and ordering when needed. (p.9)  
   e. prescribing work for students. (p.10)  
8. A teacher needs to look only at a student's IPI tests and skillsheets to have enough information to write a prescription. (p.10)  

20
9. A student is not allowed to score his own STS skillsheets. (p.12)

10. The Mathematics Prescription Sheet is a communication link between teacher, student and aide. (p.10)

11. The units contain different numbers of skills. (p.15)

12. A student must work in every skill in the continuum. (p.15)

13. A student beginning in C Numeration would be expected to have mastered all units in levels A and B. (p.15)

Answers to Posttest: Part I

1. b  
2. d  
3. a  
4. c  
5. i  
6. g  
7. e  
8. k  
9. f  
10. h  
11. j

Answers to Posttest: Part II

1. False  
2. True  
3. True  
4. True  
5. False  
6. False  
7a. True  
8. False  
9. False  
10. True  
11. True  
12. False  
13. True
Before looking at the sections that follow, make sure you have your packet of sample materials. Look through each test and the Standard Teaching Sequence (STS) booklet.

As you examine the materials
—Note the labels to see whether they refer to areas, levels, or skills.
—Note that the Curriculum Embedded Tests (CET's) are found in the STS booklet.
—Note the order in which the materials are used.

Most of the remainder of this volume is designed to help you become familiar with the IPI mathematics materials with which you will be working.

You will learn separately about each of the four kinds of tests and the Standard Teaching Sequence. You will also learn about each of the record sheets that are used in IPI math.
IPI. PLACEMENT TESTS

Placement testing is an important first step in starting a child's instruction "where he is".

This section will answer the following questions about IPI Placement Tests:

What are IPI Placement Tests used for?
How many IPI Placements are there for the Mathematics Continuum?
What does an IPI Placement Tests consist of?
What is the Mathematics Placement Profile used for?
How are IPI Placement Tests recorded?
What is the Student Profile used for?

WHAT ARE IPI PLACEMENT TESTS USED FOR?

A Placement test does just what the name implies: it places a student at the levels (A through H) at which he is ready to work. The test gives only a general, not a detailed, picture of the student's achievement level. It is usually given only at the beginning of the school year. A student must receive a score of between 20% and 80% in each area in order to be placed. He continues being tested until he is placed in each area.

HOW MANY PLACEMENT TESTS ARE THERE FOR THE IPI MATHEMATICS CONTINUUM?

There are six Placement Tests in IPI Mathematics. There is one Placement Test for each of Levels B through G inclusive, but none for the lowest or the highest levels of the continuum. Each test has one page for each of the areas which is included at that level.
WHAT DOES AN IPI PLACEMENT TEST CONSIST OF?

Use the two sample tests on pages 25 and 27 to complete the following sentences:
Cover the area below the dotted line with a card or piece of paper. When you have the answer, move the card to see if you have answered correctly.

1. Both the sample pages are from the Level_____placement test.
The areas tested are____________ and____________.

Level C; Fractions and Numeration

2. The name, class, date and student number filled in by____________.

The aide or student
IPL MATHEMATICS PLACEMENT TEST

Name: Jim Bowen
Date: 9/17
Class: 3-107
Number: 0812

Divide the set into thirds.

Ring $\frac{1}{3}$ of the set.

Ring $\frac{1}{4}$ of the set.

LEVEL AREA AND CODE NO. FOR AREA

Level C
Fractions (08)

STUDENT NUMBER
USED IN SOME SCHOOLS

SCORE BOX

LEVEL, AREA
AND CODE NO.

C FRAC (08)
3. According to the answer key in the margin on page 27 each row counts
even though there are or items
to be filled in for each row. Watch answer keys carefully for special
cases such as this when scoring IPI material.
........................................................................................................
one point; three or four items

4. The and correct are circled and then recorded on the Mathematics Placement Profile.
........................................................................................................
Number of points and percentage

5. Only answers should be marked. This saves time
and makes it easier for the teacher to see what a child needs help with.
........................................................................................................
wrong answers
Name: Jim Bowen
Class: 3 - 107

Mathematics Placement Test

Count by tens:
- 127, 137, 138, 139, 140, 141

Count by fives:
- 140, 145, 150, 155, 160, 165

Count by twos:
- 95, 97, 99, 100, 102, 104

Write the missing numbers:
- 95, 100, 105, 110, 115
- 106, 108, 110, 112, 114

Note directions for scoring:
- Transfer these numbers to math placement profile
- Be sure to circle number of points scored and percentage

Aide's initials: JOS

Level C
Numeration (01)

Date: 9/17

Count by fives:
- 150, 155, 160, 165
- 157, 167

Count by twos:
- 99, 101, 103, 105

Write the missing numbers:
- 105, 110, 115
- 110, 112, 114

Transfer these numbers to math placement profile:
- 150, 155, 160, 165
- 157, 167

Mark only wrong answers:
- Cross out 99, 102

Level C Placement Test

Number 01

Name
Class

Count by tens.
- 127, 137, 138, 139, 140, 141

Count by fives.
- 140, 145, 150, 155, 160, 165

Count by twos.
- 95, 97, 99, 100, 102, 104

Write the missing numbers.
- 95, 100, 105, 110, 115
- 106, 108, 110, 112, 114

Aide's initials: JOS

Date: 9/17
WHAT IS THE MATHEMATICS PLACEMENT PROFILE USED FOR?

The Mathematics Placement Profile sheet is a summary of one student's performance on Placement Tests. When placement testing is completed the profile will show:

a. The date testing began
b. The scores on each test taken
c. The levels at which the student is placed in each area.

It is kept in the student's folder until all placement testing is finished. Then it goes into the student's permanent file.

The profile does not list Special Topics because there are no Placement Tests for this area.

HOW ARE IPI PLACEMENT TESTS RECORDED?

Use the three sample Profile sheets on pages 29, 31 and 32 to complete the following sentences:
Cover the area below the dotted line with a card or piece of paper. When you have the answer, move the card to see if you have answered correctly.

Page 29

1. The aide fills in all sections of the sheet except the column labeled ________________ which is filled in by the teacher.

Placed at level

2. When a student finishes a Placement Test for each. __________, the aide transfers the scores from the the ________________ to the Placement Profile.

level; score box of the Placement Test

3. There are no units in Multiplication at Levels ________________ as indicated by ________________.

B and C; shaded areas
<table>
<thead>
<tr>
<th>AIDE FILLS IN</th>
<th>DATE OF TEST</th>
<th>PLACEMENT LEVELS B-H</th>
<th>PLACED AT LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDENT NAME</td>
<td>Mark Steinberg</td>
<td>5960</td>
<td>2</td>
</tr>
<tr>
<td>SCHOOL NAME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRADE</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROOM</td>
<td>33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## MATHEMATICS PLACEMENT PROFILE

<table>
<thead>
<tr>
<th>MATHEMATICS AREA</th>
<th>DATE OF TEST</th>
<th>PLACEMENT LEVELS B-H</th>
<th>PLACED AT LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMERATION (01)</td>
<td>9/17</td>
<td>B 10 9 0</td>
<td></td>
</tr>
<tr>
<td>PLACE VALUE (02)</td>
<td></td>
<td>C 5 0 0 0</td>
<td></td>
</tr>
<tr>
<td>ADDITION (03)</td>
<td></td>
<td>D 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>SUBTRACTION (04)</td>
<td></td>
<td>E 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>ADDITION/</td>
<td></td>
<td>F 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>SUBTRACTION (34)</td>
<td></td>
<td>G 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>MULTIPLICATION (05)</td>
<td></td>
<td>H 0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>DIVISION (06)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MULTIPLICATION/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIVISION (56)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMBINATION OF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROCESSES (07)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRACTIONS (08)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MONEY (09)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIME (10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYSTEMS OF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEASUREMENT (11)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>GEOMETRY (12)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Instructions:
- **AIDE FILLS IN**
  - Transferred by aide from score box on test when one level of testing is completed.
- **TEACHER FILLS IN**
  - As student completes testing at each level.
- **SHARED AREAS INDICATE**
  - No units at this level.
4. On ____________ the teacher began Joseph Howard's testing by giving him the Level ____ Placement Test. September 21st; Level D

5. The aide scored the Placement Test and filled in the ________________, ________________, and ________________ on the Mathematics Placement Profile. "Score" refers to the number of _____ items. Maximum points, score, percentage; correct

6. Joseph was then placed at Level D in ________________, ________________, and ________________ because his score was above ____ % and below ____ % in these areas. Place Value, Combination of Processes, and Fractions; above 20% and below 80%

7. The _______ fills in the appropriate box (see p.29) and decides what further testing is necessary.

the teacher
<table>
<thead>
<tr>
<th>MATHEMATICS AREA</th>
<th>DATE OF TEST</th>
<th>PLACEMENT LEVELS A-H</th>
<th>PLACED AT LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMERATION (01)</td>
<td>9/21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLACE VALUE (02)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ADDITION (03)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBTRACTION (04)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADDITION/SUBTRACTION (04)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MULTIPLICATION (05)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIVISION (06)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MULTIPLICATION/DIVISION (07)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMBINATION OF PROCESSES (07)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRACTIONS (08)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MONEY (09)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIME (10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYSTEMS OF MEASUREMENT (11)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOMETRY (12)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TESTING BEGUN AT THIS LEVEL BECAUSE OF STUDENT'S AGE AND ACHIEVEMENT LEVEL.**

**DATE TESTING BEGAN.**

**STUDENT IS TESTED AT ONLY ONE LEVEL AT A TIME.**

**NUMBER OF CORRECT ITEMS**

**PLACED AT THIS LEVEL BECAUSE SCORE WAS BETWEEN 20% and 80%**
Page 33

The Profile on p. 33 shows Joseph's placement after he has completed all placement testing.

8. Joseph was tested on 3 levels (D, E, and F) in ____________, ____________, and ____________ because he scored at Levels D and E, that is, he "mastered" these levels.

                        Addition, Subtraction and Time. 80% or better.

9. A student is given one complete Placement Test at first. He then is given only the pages in which he has not already placed. For example, on page 31, we see that Joseph needed to be tested at Level C in __________ and __________. The aide should then tear out the tests for only those two areas and fill in the student information at the top. This prevents children from mistakenly taking tests which they do not need, and in addition, keeps down waste of materials.

Geometry and Systems of Measurement

10. In Multiplication and Division the student was placed at Level E because _____________.

                        He scored between 20% and 80%
<table>
<thead>
<tr>
<th>Mathematics Area</th>
<th>Date of Test</th>
<th>Placement Levels B–H</th>
<th>Placed At Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Numeration</strong> (01)</td>
<td>9/2</td>
<td>B: 5 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>E</td>
</tr>
<tr>
<td><strong>Place Value</strong> (02)</td>
<td></td>
<td>B: 4 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>D</td>
</tr>
<tr>
<td><strong>Addition</strong> (03)</td>
<td></td>
<td>B: 4 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>F</td>
</tr>
<tr>
<td><strong>Subtraction</strong> (04)</td>
<td></td>
<td>B: 5 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>F</td>
</tr>
<tr>
<td><strong>Addition/Subtraction</strong> (05)</td>
<td></td>
<td>B: 5 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>F</td>
</tr>
<tr>
<td><strong>Multiplication</strong> (06)</td>
<td></td>
<td>B: 5 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>E</td>
</tr>
<tr>
<td><strong>Division</strong> (07)</td>
<td></td>
<td>B: 5 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>E</td>
</tr>
<tr>
<td><strong>Multiplication/Division</strong> (08)</td>
<td></td>
<td>B: 5 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>E</td>
</tr>
<tr>
<td><strong>Combination of Processes</strong> (09)</td>
<td></td>
<td>B: 5 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>D</td>
</tr>
<tr>
<td><strong>Fractions</strong> (10)</td>
<td></td>
<td>B: 5 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>D</td>
</tr>
<tr>
<td><strong>Money</strong> (11)</td>
<td></td>
<td>B: 5 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>D</td>
</tr>
<tr>
<td><strong>Time</strong> (12)</td>
<td></td>
<td>B: 5 C: 5 D: 5 E: 5 F: 5 G: 5 H: 5</td>
<td>C</td>
</tr>
</tbody>
</table>

**Notes:**
- Testing was begun at Level D.
- Testing continued at higher levels where student scored 80% or better.
- Testing continued at lower levels where student scored 20% or less.
WHAT IS THE STUDENT PROFILE USED FOR?

The form on the opposite page is the Student Profile which is used to summarize the results of each student's placement tests after he has been placed in all areas, and to indicate at what level he should begin work in each area.

This form is filled out by the aide from the information on the Placement Profile merely by marking off all units in which Joseph no longer needs work. The Student Profile is kept in the student's folder and filled in with an X and the date each time the student masters a unit. (see p. 107)
<table>
<thead>
<tr>
<th>H</th>
<th>G</th>
<th>F</th>
<th>E</th>
<th>D</th>
<th>C</th>
<th>B</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**STUDENT PROFILE**

**Name:** Joseph Howard  
**Grade:** 5  
**Room:** 7

"This information has been taken from Joseph's placement profile by the aide."

"Student will probably begin work here, as it is the lowest unit not yet mastered."

"X's denote mastery. X out units up to the one on which the student will begin."

Check (X) the box to indicate mastery of unit."
POSTTEST ON PLACEMENT TESTS

Choose the best answers. Refer back to the page numbers when you need more information about an item.

1. Placement tests are usually given (p.24)
   a. when needed throughout the school year
   b. only at the beginning of the school year

2. There are no placement tests for (p.24)
   a. Level A
   b. Level H
   c. Both A and H

3. IPI Placement tests give a ________picture of a student's achievement (p.23)
   a. thorough and detailed
   b. general

4. Which of the following is not done by the aide on a Placement Test? (pp.25,27,30)
   a. Filling in student information in the blanks at the top of each page that is to be used by the student.
   b. Marking correct answers
   c. Circling number correct and percentage for transfer to Placement Profile.

5. While Placement testing is taking place the student's scores and placement level are recorded on (pp.28-32)___________.
   a. Student Profile
   b. Math Prescription Sheet
   c. Math Placement Profile

6. After Placement testing is completed his placement level is recorded on (p.34)___________.
   a. Student Profile
   b. Math Prescription Sheet
   c. Math Placement Profile
7. A student is usually given the next lower placement test if he obtains (p.32)
   a. 79% or lower
   b. 20% or lower

8. A student is usually given the next higher placement test if he obtains (p.32)
   a. 80% or above
   b. 21% or above

9. The teacher is not responsible for (p.29-31)
   a. Deciding which level to begin Placement testing.
   b. Filling in all information on Placement Profile
   c. Making decisions about the units in which a student needs further testing.
   d. Filling in Placed at Level information on the Placement Profile.

10. When a student needs further testing at a higher or lower level, he (p.30-32)
    a. Must take the entire test
    b. Takes only the pages of the test which cover the areas he needs at that level.

11. The is kept in the student's folder throughout the year and added to as he masters each unit. (p.34)
    a. Student Profile
    b. Placement Profile

12. The usual point of Mastery for Placement Tests only is (p.32)
    a. 85% or above
    b. 80% or above
ANSWERS TO POSTTEST

1. b
2. c
3. b
4. b
5. c
6. a
7. b
8. a
9. b
10. b
11. a

Now go back to your packet of IPI materials. Take the Placement Test for one complete level (for example Level D). Score the test and record the scores on the Mathematics Placement Profile.

A note of caution: Remember that mathematics has changed a great deal in the last few years, so don't be discouraged if there are some items to which you do not know the answers.
IPI PRETESTS

IPI Pretests are the second step in making sure a student will work only on the skills which he needs to learn.

This section will answer the following questions about IPI Pretests:

What are IPI Pretests used for?
How many IPI Pretests are there for the IPI Mathematics Continuum?
What does an IPI Pretest consist of?
What does the Pretest answer key consist of?
What is the Mathematics Prescription Sheet used for?
How are IPI Pretests recorded?

WHAT ARE IPI PRETESTS USED FOR?
A pretest is one which comes before material has been taught. It serves both as a preview of what is coming and also as a way of finding out what a student already knows. The student is not expected to know the answers to the questions, but occasionally he does know some of the information.

IPI Pretests are used to measure the mastery of all the skills in one particular unit of the Continuum. A Pretest for a single unit is taken by the student after placement testing when he is ready to enter the unit. The scores tell the teacher which skill(s) the student has yet to learn within the unit.

HOW MANY IPI PRETESTS ARE THERE FOR THE MATHEMATICS CONTINUUM?
There is a Pretest for every unit in the Continuum except for Level A (Numeration, Addition, Fractions)

WHAT DOES AN IPI PRETEST CONSIST OF?
Use the sample Pretest on pages 41-46 and the answer keys on pages 47-49 to complete the following sentences:
Cover the area below the dotted line with a card or piece of paper. When you have the answer, move the card to see if you have answered correctly.

1. The Pretest on the following pages is for the unit___________________.

C-Numeration
2. Remember that each unit in the continuum covers a different number of skills (see P.15, fig.2). There is a section in every pretest for each skill in a unit. This unit contains ________ skills.

8 skills

3. In the C-Numeration Pretsts skill 1 has a possible score _____ points. Skill 2 has a possible score of _____ points.

9 points; 4 points.

4. Jim Bowen had _____ items correct in skill 8; therefore his score was _____ points and _____%.

3 items; 3 points; 60%

5. "C.D." stands for ______ when written by the student next to an item not filled in.

Can't do

6. When students are asked to write out answers the aide should _______ in deciding how to score incorrect spelling. (p.46)

Consult with the teacher

7. The covers of the Pretest answer keys (p.47) are labeled according to the __________. The black squares indicate the __________ which are included at that level.

Level; Units (or areas)
**LEVEL C, NUMERATION (01)**

Numeration: Direct the student to read, write, count, and to sequence numbers to 200; and to skip count by 2's, 5's, and 10's to 200 from any starting point.

Fill in the empty boxes. Count down in each column.

<table>
<thead>
<tr>
<th>129</th>
<th>137</th>
<th>145</th>
<th>153</th>
<th>161</th>
<th>169</th>
<th>177</th>
<th>185</th>
<th>193</th>
</tr>
</thead>
<tbody>
<tr>
<td>130</td>
<td>138</td>
<td>146</td>
<td>154</td>
<td>162</td>
<td>170</td>
<td>178</td>
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<td>168</td>
<td>176</td>
<td>184</td>
<td>192</td>
<td>200</td>
</tr>
</tbody>
</table>

**NOTE THAT THE STUDENT IS ASKED TO COUNT DOWN EACH COLUMN. A COLUMN IS VERTICAL. A ROW IS HORIZONTAL.**

**IT IS USEFUL FOR AIDES TO INITIAL ALL WORK.**
C NUMERATION (01) PRE-TEST

In each row, fill in the numbers.

<table>
<thead>
<tr>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
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<td>123</td>
<td>124</td>
<td>125</td>
<td>126</td>
</tr>
<tr>
<td>97</td>
<td>98</td>
<td>99</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>179</td>
<td>180</td>
<td>181</td>
<td>182</td>
<td>183</td>
</tr>
<tr>
<td>195</td>
<td>196</td>
<td>197</td>
<td>198</td>
<td>199</td>
</tr>
</tbody>
</table>

STUDENTS ARE OFTEN TOLD TO WRITE C.D. FOR "CAN'T DO" so teacher will know it has NOT BEEN SKIPPED BY MISTAKE.

Just after | Just before | Between
---|---|---
47, 48 | X, 27 | 56, 57, 58
118, 119 | X, 124 | 109, 119, 111
193, 194 | X, 140 | 163, 164, 165
C NUMERATION (01)  PRE-TEST

- In each row, count by 10's.

80  90  91  92  93
152  162  172  182  192
109  119  129  139  149

- In each row, count by 5's.

125  130  135  140  145
85  90  95  100  105
160  165  170  175  180

THERE IS A TEST FOR EACH SKILL IN EACH UNIT.

SKILL 4

SKILL 5
In each row, count by 2's.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>64</td>
<td>66</td>
<td>68</td>
<td>70</td>
<td>72</td>
</tr>
<tr>
<td>97</td>
<td>99</td>
<td>100</td>
<td>102</td>
<td>104</td>
</tr>
<tr>
<td>140</td>
<td>142</td>
<td>144</td>
<td>146</td>
<td>148</td>
</tr>
</tbody>
</table>

Ring the odd numbers.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>101</td>
<td>142</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>139</td>
<td>200</td>
<td>186</td>
</tr>
</tbody>
</table>

SCORES TRANSFERRED FROM HERE TO THE PRESCRIPTION SHEET
Fill in the numbers in the row. Then, in the circle, write the number you counted by.

140  145  150  155  160

96  98  100  102  104

80  90  100  101  102

0  5  10  15  20

102  104  108  110  112

45
Write the word names for the numbers.

INCORRECT SPELLING COUNTED WRONG BECAUSE THAT IS THE OBJECTIVE IN THIS SKILL.

0 zero
2 too X
4 for X
7 seven X
9 nine

INCORRECT SPELLING NOT ALWAYS WRONG. CHECK WITH TEACHER.
Pre-Tests
REVISED DEVELOPMENTAL EDITION

- based upon materials developed by the
  IPI Project Staff
LEARNING RESEARCH AND DEVELOPMENT
University of Pittsburgh

- distributed by
RESEARCH FOR BETTER SCHOOLS, INC.

THIS KEY CONTAINS ANSWERS FOR ALL PRETESTS AT THIS LEVEL.

THERE ARE NO UNITS FOR MULTIPLICATION OR DIVISION AT LEVEL C
Pre-Test, Level C, Numeration (01)

In each row, fill in the numbers.

| 10 | 11 | 12 | 13 | 14 |
| 122 | 123 | 124 | 125 | 126 |
| 97 | 98 | 99 | 100 | 101 |
| 179 | 180 | 181 | 182 | 183 |
| 195 | 196 | 197 | 198 | 199 |

Fill in the blank to show what numbers come just before, or between.

| 47, 48 | 26, 27 | 56, 57, 58 |
| 118, 119 | 123, 124 | 109, 110, 111 |
| 109, 104 | 139, 140 | 163, 164, 165 |

In each row, count by 10's.

| 80, 90, 100, 110, 120 |
| 132, 142, 152, 162, 172, 182, 192 |
| 108, 118, 129, 139, 149 |

In each row, count by 5's.

| 125, 130, 135, 140, 145 |
| 85, 90, 95, 100, 105 |
| 150, 160, 170, 175, 180 |

Ring the odd numbers.

| 3, 101, 142, 100 |
| 2, 129, 200, 186 |
**Fill in the numbers in the row. Then, in the circle, write the number you counted by.**

<table>
<thead>
<tr>
<th>160</th>
<th>145</th>
<th>150</th>
<th>155</th>
<th>160</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>102</td>
<td>104</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>100</td>
<td>101</td>
<td>102</td>
<td>103</td>
<td>104</td>
<td>10</td>
</tr>
<tr>
<td>103</td>
<td>104</td>
<td>105</td>
<td>106</td>
<td>107</td>
<td>2</td>
</tr>
</tbody>
</table>

**Write the word names for the numbers.**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>zero</td>
</tr>
<tr>
<td>2</td>
<td>two</td>
</tr>
<tr>
<td>4</td>
<td>four</td>
</tr>
<tr>
<td>7</td>
<td>seven</td>
</tr>
<tr>
<td>9</td>
<td>nine</td>
</tr>
</tbody>
</table>
WHAT IS THE MATHEMATICS PRESCRIPTION SHEET USED FOR?

The Mathematics Prescription Sheet is used more than any other record sheet in IPI, and is somewhat more complicated than the others. It is used to record everything a student does after Placement testing is completed.

Each student receives a new Prescription Sheet for each unit on which he works. Since he takes a Pretest at the beginning of each unit, his Pretest scores are the first thing to be recorded.

The blank Prescription Sheet at right has been divided into four sections to show you the important parts which you will be concerned with.

Section 1 is used to record Pretest and Posttest scores (see p.53) (p.103). The aide records these scores.

Section 2 is used to record the student's daily work in the STS booklets.

Section 2A is filled in by the teacher as she prescribes work for the student (see p.59). The aide must be aware of what the teacher has prescribed for the student in order to record correctly and to make sure the student is doing the work which has been assigned. Therefore, the aide will be concerned with Section 2A, even though she does not write in that section.

Section 2B is filled in by the aide (or students who correct their own work) to record scores from skill sheets. (see p.80)

Section 3 is used by the aide to record scores from Curriculum Embedded Tests (CET's) (see p.92)
HOW ARE PRETESTS RECORDED?

On the sample page opposite, certain parts of the Prescription Sheet have been isolated so they can be read more easily. Use this page to complete the following sentences:

1. This Mathematics Prescription Sheet was filled out by the aide when Jim Bowen was beginning work in the unit _______________.

   Level C - Fractions

2. The skill numbers must be written in each time by the aide because units have different numbers of skills. This unit contains ____ skills.

   4 skills

3. The teacher will prescribe work for Jim in skills ___________ because he scored below ______ in those skills.

   1, 3, and 4; 85%

4. We say that Jim has ___________ skill 2 because he scored ______. He will probably not have work prescribed for him in this skill.

   Mastered; 85% or above
**Mathematics Prescription Sheet**

**Student Name:** Jim Bowen  
**Student Number:** 0812  
**Grade:** 3  
**Room:** 107  
**Unit:** C-Frac.

**Unit Dates**

<table>
<thead>
<tr>
<th>UNIT BEGUN</th>
<th>UNIT ENDED</th>
<th>DAYS WORKED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Aide or teacher will circle skills in which Jim needs work.

Aide fills in this information after scoring Jim's pretest in Level C-Fractions.

<table>
<thead>
<tr>
<th>Skill Number</th>
<th>Max Points Per Skill</th>
<th>Pre Score</th>
<th>%</th>
<th>Post Score</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>1</td>
<td>25%</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>3</td>
<td>100%</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>2</td>
<td>50%</td>
<td>4</td>
<td>50%</td>
</tr>
</tbody>
</table>

Mastery on pretests is 85% or more.

**Dates:** 7/24
POSTTEST ON PRETESTS

Choose the best answers. Refer back to the page numbers when you need more information about any item.

1. IPI Pretests are used to find out (p.38)
   a. a student's general level of achievement
   b. a student's mastery of specific skills in one unit. 1.

2. There is a Pretest for (p.38)
   a. every unit in the IPI continuum
   b. every level in the IPI continuum 2.

3. Each unit covers number of skills. (p.39)
   a. the same
   b. a different 3.

4. Pretest scores are recorded on (pp.50,52)
   a. Student Profile
   b. Mathematics Placement Profile

5. According to the way the Prescription on page 51 has been divided, the aide does not write in (pp.50,51)
   a. Section 1, Pre and Posttest scores
   b. Section 2A, Skill booklets
   c. Section 2B, Skill booklets
   d. Section 3, Curriculum Test 5.
6. The section which is referred to above is not written in by the aide because (Choose the incorrect answer) (p.50)
   a. No scores are recorded in that section.
   b. It is used for prescriptions and the aide does not prescribe work.
   c. The aide is not concerned with skill booklets.  

A new Prescription sheet is used (p.50)
   a. only when one sheet is filled up.
   b. each time a student begins a new unit.

Jennifer Lubec took the Pretest for U-Money which is recorded at right. Using the information given, fill in the blanks of the following sentences:

8. Jennifer has mastered skill number (s)_______ as indicated by score (s) of__________ on (p.52,53)

9. The teacher or the aide would circle skill number (s)_______ because the score (s)______________________(p.52,53)

10. The teacher will probably not prescribe work for Jennifer in skill(s)________________________. (p.50,51)
ANSWERS TO POSTTEST

1. b 6. c
2. a 7. b
3. b 8. 1 and 4; 85% or above
4. c 9. 2, 3, 5 and 6; are below 85%
5. c

10. 1 and 4

Now go back to your packet of IPI materials. Take the pretest, score it and record the scores on the Prescription form.
The Standard Teaching Sequence (STS) booklets are the main teaching tool of IPI. This section will answer the following questions:

What are the Standard Teaching Sequence Booklets used for?
How many STS booklets are there for the IPI Mathematics Continuum?
How is work prescribed for an STS booklet?
What does an STS booklet consist of?
How are the STS scores recorded?

WHAT ARE STANDARD TEACHING SEQUENCE BOOKLETS USED FOR?

The STS booklets are used more than any of the other IPI material. Each booklet contains material on one skill in a unit. The booklets provide materials for learning a new skill and for practicing what has been learned.

HOW MANY STS BOOKLETS ARE THERE FOR THE IPI MATHEMATICS CONTINUUM?

There is an STS booklet for every skill in every unit except for a few oral skills at Level A.
HOW IS WORK PRESCRIBED FOR AN STS BOOKLET?

After a student's Pretest in a unit has been scored by the aide, the teacher analyzes it to decide which STS booklets she will prescribe for him and which pages within the booklets she will prescribe.

On the next few pages you will find an example of a student's first prescription and some sample pages from the STS booklet in which the student worked. Complete the following sentences using information from these pages.

Page 59
1. Jim Bowen's prescription sheet shows that he is working in the unit ____________________________.

   C-Fractions

2. The teacher's first prescription for Jim is in Skill_______ as indicated by his score in the____________.

   Skill 1; Pretest

3. The teacher prescribed the Student Page and then only pages_______ in the STS booklet.

   1, 2, 4, 5, 9.
**STUDENT NAME:** Jim Bowen  
**STUDENT NUMBER:** 0812

**SCHOOL STAMP**

**GRADE:** 3  
**ROOM:** 107  
**UNIT:** C-Frac

### Skill Booklets

<table>
<thead>
<tr>
<th>DATE</th>
<th>PRES. INIT.</th>
<th>SKILL NO.</th>
<th>PAGE NO.</th>
<th>INST. TECH CODES</th>
<th>INSTRUCTIONAL NOTES</th>
<th>TOTAL POINTS</th>
<th>NUMBER CORRECT</th>
<th>NO. OF POINTS %</th>
<th>NO. OF POINTS %</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/2</td>
<td>EP 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>Read Student Page</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**JIM'S FIRST PRESCRIPTION FOR THIS UNIT**

**DATE OF PRETEST**

**CURRICULUM TEST**

**PRETEST SHOWED THAT JIM NEEDED WORK IN SKILL 1.**

### Pre and Post Test Scores

<table>
<thead>
<tr>
<th>SKILL NUMBER</th>
<th>MAX POINTS PER SKILL</th>
<th>PRE SCORE</th>
<th>POST SCORE</th>
<th>% POST SCORE</th>
<th>% POST SCORE</th>
<th>% POST SCORE</th>
<th>% POST SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>6</td>
<td>85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>3</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
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<td>4</td>
<td>5</td>
<td>2</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DATES:** 9/26
WHAT DOES AN STS BOOKLET CONSIST OF?

Complete the following sentences using information from pages 61-76:

1. Each Standard Teaching Sequence (STS) booklet covers _______________________.
   .......................................................... only one skill

2. The Student Page gives examples of the kinds of items the student will find in the booklet. It is found ________________________ and the answers are checked by ________________________ at the beginning of each booklet; the student

3. Scores are transferred from the STS booklet to the Prescription Sheet
   .................................................................................................................................

4. Most pages have ______________________ where answers are given with dotted lines. The aide should make sure that the student does/does not go over these answers. She does/does not include them in the score. Sample items; does go over them and does include them in the score.
   .................................................................................................................................

5. It is important that the answer Keys always be used for scoring both tests and STS booklets because ________________________. It is faster and more accurate
   .................................................................................................................................

6. There are _____ Curriculum Embedded tests (CET's) in each STS booklet. two
   .................................................................................................................................

7. Scores for CET's are found ________________________ so that students who self-correct STS booklets will not have test answers in front of them.
   ................................................................................................................................. in separate answer keys
Standard Teaching Sequence
REVISED DEVELOPMENTAL EDITION

- based upon materials developed by the 
  IPI Project Staff 
  LEARNING RESEARCH AND DEVELOPMENT CENTER 
  University of Pittsburgh 

- distributed by 
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- written and revised by 
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  under the direction of Jerome D. Kaplan 

INDIVIDUALLY PRESCRIBED INSTRUCTION 
LEVEL C, FRACTIONS (08), SKILL 1
TO THE STUDENT

Divide the first box into halves, the second box into thirds and the last box into fourths.

THERE IS A STUDENT PAGE AT THE BEGINNING OF EACH STS BOOKLET

STUDENT CHECKS HIS OWN ANSWERS ON STUDENT PAGE.

Answers
Fill in the blanks.

This is a circle.

This circle is divided into \[rac{4}{4} \] equal parts.

This circle is divided into how many equal parts? 4

When an object is divided into 4 equal parts, we say the object is divided into fourths.

This box is divided into how many equal parts? 4

Scores transferred from here to prescription sheet.

This identification matches that on answer key page. (See P. 73.)
When an object is divided into 4 equal parts, it is divided into fourths.

Divide the objects below into fourths.

All these objects are now divided into equal parts.

They are not equal fourths.

TOTAL POINTS INCLUDE SAMPLE ITEMS.

<table>
<thead>
<tr>
<th>TOTAL POINTS</th>
<th>NUMBER CORRECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

LEVEL UNIT SKILL PAGE
C 08 1 2
These boxes are divided into _______.

This box is not divided into fourths. Why not?

Put an X on the figures that are divided into fourths.

Practice, 11.
Fill in the blanks.

This is a circle.

This circle is divided into \( \frac{3}{3} \) equal parts.

How many equal parts is this circle divided into? 3

When an object is divided into 3 equal parts, we say the object is divided into thirds.

This box is divided into \( \frac{3}{3} \) equal parts.

It is divided into thirds.
When an object is divided into 3 equal parts, it is divided into thirds.

Divide the objects below into thirds.

All these objects are now divided into equal parts.

They are divided into thirds.
How is the picture divided?

Ring the answer.

- Is divided into thirds halves fourths
- Is divided into fourths thirds halves
- Is divided into halves thirds fourths
- Is divided into halves thirds fourths

Practice, 12.

IF STUDENT MAKES ERRORS ON STS (NOT ON TESTS) TEACHER MAY HAVE HIM MAKE CORRECTIONS.
CET I

Divide the figures into the parts named.

halves  thirds  fourths

fourths  halves

Mark each figure in the row that matches the word.

thirds

halves

fourths

Ring the fraction.

\[
\begin{array}{ccc}
\frac{1}{3} & \frac{1}{2} & \frac{1}{4} \\
\frac{1}{2} & \ \frac{1}{3} & \frac{1}{4} \\
\frac{1}{2} & \frac{1}{3} & \frac{1}{4}
\end{array}
\]
Ring all the objects that are divided into fourths.
CET II

Mark each figure in the row that matches the word.

- **fourths**
  - Figure 1
  - Figure 2
  - Figure 3
  - Figure 4

- **thirds**
  - Figure 5
  - Figure 6
  - Figure 7

- **halves**
  - Figure 8
  - Figure 9

Divide the figure into the parts named.

- **thirds**
  - Figure 10

- **halves**
  - Figure 11

- **fourths**
  - Figure 12

halves

thirds

Ring the fraction.

- Figure 13
- Figure 14
- Figure 15

<table>
<thead>
<tr>
<th>TL. Pts</th>
<th>NO. OF Pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>7</td>
<td>48</td>
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<td>5</td>
<td>78</td>
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<td>4</td>
<td>54</td>
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<td>3</td>
<td>39</td>
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<tr>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>1</td>
<td>13</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>TL. Pts</th>
<th>NO. OF Pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>87</td>
</tr>
<tr>
<td>1</td>
<td>57</td>
</tr>
</tbody>
</table>
LEVEL C, FRACTIONS, SKILL 1

OBJECTIVE: Divides a whole object into halves, thirds, or fourths.

TEACHER CIRCLES PAGES TO BE DONE BY STUDENT AND WRITES THEM ON THE PRESCRIPTION SHEET.

STANDARD TEACHING SEQUENCE

<table>
<thead>
<tr>
<th>Pages</th>
<th>Supplementary Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Says that an object is divided into 4 equal parts or into fourths.</td>
</tr>
<tr>
<td>2.</td>
<td>Divides objects into fourths.</td>
</tr>
<tr>
<td>3.</td>
<td>Puts an X on figures that are divided into fourths, rejecting all figures not divided into 4 equal parts.</td>
</tr>
<tr>
<td>4.</td>
<td>Says that an object is divided into 3 equal parts or into thirds.</td>
</tr>
<tr>
<td>5.</td>
<td>Divides objects into thirds.</td>
</tr>
<tr>
<td>6.</td>
<td>Puts an X on figures that are divided into thirds, rejecting all figures not divided into 3 equal parts.</td>
</tr>
<tr>
<td>7.</td>
<td>Divides objects into halves.</td>
</tr>
<tr>
<td>8.</td>
<td>Circles the objects which are divided into halves.</td>
</tr>
<tr>
<td>9.</td>
<td>Circles the word which tells whether a given object is divided into halves, thirds, or fourths.</td>
</tr>
<tr>
<td>10.</td>
<td>CET I.</td>
</tr>
<tr>
<td>11.</td>
<td>CET II.</td>
</tr>
</tbody>
</table>

Teaching Aids:

- Fraction pies
- Fraction wheel (Ideal)
- Flannel board (Instructo)
- Fractional parts: squares, circles
- Teacher's fraction kit, flannel board
- Fractions Made Easy (Ideal)
- Simple Fractions Kit (Creative Playthings)
- Fraction parts on a board (M. Bradley)

Circle pages that are to be done.
Standard Teaching Sequences
REVISED DEVELOPMENTAL EDITION

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IT IS BOTH FASTER AND
MORE ACCURATE TO USE
ANSWER KEYS WHEN
SCORING ALL STUDENT WORK.
**Level C, Fractions (08), Skill 1 (Pages 1-4)**

**Page 1**

**Fill in the blanks.**

This is a circle.

This circle is divided into __ equal parts.

This circle is divided into how many equal parts? __

When an object is divided into 4 equal parts, it is divided into fourths.

Divide the objects below into fourths.

(this fourths permitted)

All these objects are now divided into equal parts. They are divided into fourths.

**Page 2**

**Fill in the blanks.**

This is a circle.

This circle is divided into __ equal parts.

How many equal parts in this circle divided into? __

When an object is divided into 3 equal parts, it is divided into thirds.

Practice, 11.
Level C, Fractions (08), Skill 1 (Pages 5-8)

Page 5

When an object is divided into 3 equal parts, it is divided into thirds.

Divide the objects below into thirds.

NOTE THAT ANY EQUAL DIVISION IS ACCEPTED THOUGH STUDENT’S IS NOT IDENTICAL WITH KEY.

Dividing rule: Accept any equal division into 3 parts.

All these objects are now divided into equal parts. They are divided into thirds.

Page 6

This circle is divided into thirds.

This circle is not divided into thirds. Why not?

Because it is not divided into 3 equal parts (as similar answer).

Put an X on the figures that are divided into thirds.

Page 7

When an object is divided into 2 equal parts, we say it is divided into halves.

Divide these objects into halves.

Any equal division into halves.

All these objects are now divided into halves.

Page 8

Ring the objects which are divided into halves.
**CET II**

Mark each figure in the row that matches the word.

<table>
<thead>
<tr>
<th>Fourth</th>
<th>Third</th>
<th>Half</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Fourth" /></td>
<td><img src="image2" alt="Third" /></td>
<td><img src="image3" alt="Half" /></td>
</tr>
</tbody>
</table>

Divide the figure into the parts named.

- Thirds
- Halves
- Fourths

![Divide](image4)

**Objective:** Divide a whole object into halves, thirds, or fourths, or identify an object divided into halves, thirds, or fourths.

**STANDARD TEACHER'S INSTRUCTION**

1. Shade the object to divide into equal parts or into halves.
2. Describe objects into fourths.
3. Pass on 3 figures that are divided into fourths, reporting all figures not divided into a equal parts.
4. Shade the object to divide into thirds. 
5. Describe objects into thirds.
6. Pass on 3 figures that are divided into thirds, reporting all figures not divided into a equal parts.
7. Describe objects into halves.
8. Count the objects which are divided into halves.
9. Count the word match tells whether a given object is divided into halves, thirds, or fourths.

**CET L**

**CET H**

**Teaching Aids:**
- Practice book
- Practice color sheets
- Word card (knowledge
- Word card (knowledge
- Teacher's manual
- Word cards (knowledge
- Simple Fraction (knowledge
- Simple Fraction (knowledge

Circle pages that are to be done.

**EntireSTS reproduced in answer key, but no answers given for CET's**

**Since students sometimes score their own sts booklets, test scores are found in separate keys.**

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HOW ARE STS SCORES RECORDED?

There are two Mathematics Prescription Sheets on the following pages. The section shown on page 79 shows the first prescription after the scores have been recorded by the aide. The Prescription Sheet on pages 81 and 82 shows all of Jim's work in the unit C-Fractions up to the posttest.

If you look carefully at these pages you can see how the Prescription Sheet becomes a communication link between the teacher and the student with the help of the aide. These record sheets contain information about everything a student does after his placement testing is completed.
Complete the following sentences using information from these pages:

Page 79

1. Jim Bowen's prescription sheet was initialed by both __________________________. The scorer is usually the aide, but may be the student or sometimes the teacher.

2. The teacher has put down code numbers for instructional settings (types of grouping) for pages_______ in Skill 1. These code numbers are for the student's and teacher's information.

3. Code numbers for instructional materials are indicated for pages ______________. The aide should be aware of these numbers because she may need to supply the materials for the student. The teacher has prescribed manipulative devices (code no.___), and a filmstrip (code no.___) for this student.

2 and 4; 12; 08
<table>
<thead>
<tr>
<th>Date</th>
<th>Pres. Init.</th>
<th>Skill No.</th>
<th>Page No.</th>
<th>Inst. Tech Codes</th>
<th>Instructional Notes</th>
<th>Total Points</th>
<th>Correct</th>
<th>No. of Points</th>
<th>%</th>
<th>No. of Points</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>EP</td>
<td>1</td>
<td>Read</td>
<td>Student Page 9</td>
<td>A</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INSTRUCTIONAL TECHNIQUES CODE FOR TYPES OF GROUPINGS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Teacher Tutor</td>
</tr>
<tr>
<td>02</td>
<td>Peer Tutor</td>
</tr>
<tr>
<td>03</td>
<td>Small Group</td>
</tr>
<tr>
<td>04</td>
<td>Large Group</td>
</tr>
<tr>
<td>05</td>
<td>Seminar</td>
</tr>
<tr>
<td>07</td>
<td>Independent Study</td>
</tr>
<tr>
<td>11</td>
<td>Tutor of Others</td>
</tr>
</tbody>
</table>

**CODE FOR MATERIALS OTHER THAN IPI TESTS AND SKILL SHEETS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Material Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>Core Tests</td>
</tr>
<tr>
<td>08</td>
<td>Film Strips</td>
</tr>
<tr>
<td>09</td>
<td>Records/Traps</td>
</tr>
<tr>
<td>10</td>
<td>Research</td>
</tr>
<tr>
<td>12</td>
<td>Manipulative Devices</td>
</tr>
</tbody>
</table>
5. The first thing a student usually does in each STS is which he scores himself.

6. In skill 1, Jim made errors on pages . The check mark shows that .

7. The aide transfers the total points and the number correct from the .

8. Jim did no work in skill number because .

Skill 2; his pretest score showed mastery of that skill.
<table>
<thead>
<tr>
<th>DATE PRESENTED</th>
<th>SKILL NO.</th>
<th>PAGE NO.</th>
<th>INST. TECH CODES</th>
<th>INSTRUCTIONAL NOTES</th>
<th>TOTAL POINTS</th>
<th>NUMBER CORRECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/12/EP 4</td>
<td>4675</td>
<td>64</td>
<td></td>
<td></td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>C25</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5/5 100</td>
<td></td>
</tr>
</tbody>
</table>

BACK OF PRESCRIPTION SHEET. NOTE DIFFERENCE
POSTTEST ON STANDARD TEACHING SEQUENCE

Choose the best answers. Refer back to the page numbers when you need more information about any item.

1. Each STS booklet covers one_________. (p.57)
   a. unit
   b. skill
   1._____

2. A new Prescription Sheet is made out for each_______(p.50).
   a. unit
   b. skill
   2._____

3. A completed prescription sheet would show all of the student's work in______(p.48,79).
   a. every skill in one unit
   b. those skills in one unit which are indicated by pretest scores
   c. one skill in a unit
   3._____ 

Fill in the blanks:

4. There are____CET's in each STS booklet. Answers for these tests are found______________________(p.58).  4._____

5. Robert Flaherty is working on the unit F-Geometry. His work is recorded on the prescription sheet below. Robert did not score his own work. Using the information given, fill in the blanks of the following sentences:

<table>
<thead>
<tr>
<th>SKILL BOOKLETS</th>
<th>CURRICULUM TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DATE</strong></td>
<td><strong>PRES. INIT.</strong></td>
</tr>
<tr>
<td>3/10 (Fri)</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   a. This prescription was made on_____ by the teacher, whose initials are______ and was scored and recorded by the aide whose initials are_____. (p.78)
b. The prescription is for work in skill_____, pages_____(p.77)

c. Robert made errors on page______which he has/has not corrected, as indicated by the_________________. (p.78)

d. The teacher prescribed manipulative materials for Robert to use with page_______. This is indicated by the number______in the column labeled______________________________________(p.76)

ANSWERS TO POSTTEST

1. b
2. a
3. b
4. two, in separate answer keys
5a. March 10; FW; JG
   b. Skill 6; 4, 7 and 8
   c. 7, has corrected; check mark
   d. 4, 12; Inst(ructional) Tech(niques) Codes.

Now go back to your packet of IPI materials. Pick certain pages from one STS booklet, do the work, score them and record the scores on the Prescription form.
Although Curriculum Embedded Tests (CET's) are included in the STS booklets, they need explanation separately. This section will answer the following questions:

What are CET's used for?
Where are CET's found?
What do CET's consist of?
How are CET's recorded?

WHAT ARE CET'S USED FOR?

CET's are used to keep track of a student's progress as he works within one skill. When the teacher decides that a student has mastered a skill, she prescribes a CET. The first part of the CET tests the student's mastery of that skill and the second part is a short pretest of the next skill.

He must receive a score of 85% or better on Part 1 to move on to the next skill. From his score on Part 2 of the CET and his Pretest score, his teacher will decide whether he needs to work in the next skill.

WHERE ARE CET'S FOUND?

CET'S are found in two places.
CET I and II for a skill are found in the STS booklet for the particular skill. There are also pads of CET I's bound together which are used as extras when needed.

Answer keys are similar to those for the STS booklets, but are kept separately.
WHAT DO CET'S CONSIST OF?

There are three CET's and an answer key on page 85 through 88. Complete the following statements using information from these pages:

1. Most CET's consist of ___ parts which are separated by ___________. Do not confuse Part 1 and Part 2 with CET I and CET II.

2. The only CET's which do not have two parts are the ones for ___________.

3. Extra or supplementary CET's are found ___________.

4. There is a separate ___________ for each part of a CET.

Extra or supplementary CET's are found in pads.
CET I

Circle the equation showing the associative principle.

\[ 24 \times 7 = (20 + 4) \times 7 \quad 24 \times 7 = 20 \times 7 + 4 \times 7 \]  

Circle the equation showing the distributive principle

\[ 8 \times 2 \times 3 = 3 \times 2 \times 8 \quad 8 \times 2 \times 3 = 3 \times 2 \times 8 \]

Write the letter that stands for the principle used in each equation or expression.

- C for commutative
- A for associative
- D for distributive
- I for inverse

\[ 8 \times 5 = 5 \times 8 \quad 4 \times (6 \times 8) = (4 \times 6) \times 8 \quad 8 \times 2 \times 3 = 3 \times 2 \times 8 \]

Solve the problem. Label your answer.

Jane bought some toy furniture for her doll house. The desk costs 15¢ and the color TV set costs 20¢. The table costs as much as the desk and the TV put together. How much did the table cost?

\[ 35 \]
CET II

Circle the equation showing the associative principle.

\[(9 + 8) + 5 = 9 + (8 + 5)\]  
\[74 \times 5 = (70 + 4) \times 5\]

Circle the equation showing the distributive principle.

\[372 + 6 = (300 + 72) + 6\]  
\[(12 \times 6) \times 4 = 12 \times (6 \times 4)\]

Write the letter that stands for the principle used in each equation or expression.

C for commutative  
A for associative  
D for distributive  
I for inverse

\[9 \times 26 = 26 \times 9\]  
\[(9 \times 3) \times 2 = 9 \times (3 \times 2)\]

\[240 + 48 = (40 + 8) \times 6\]  
\[15 + 7 = 7 + 15\]

\[14 + 7 = 21\]  
\[21 - 7 = 14\]

Solve the problem. Label your answer.

Fred bought a boat for 45¢ and a top for 30¢. How much change did he get from $1.00?

USE THIS TO LOCATE ANSWER KEY PAGE.
Solve each problem. Label your answers.

Jim and his father had to travel 137 miles to the boy scout camp site. Dick and his father traveled 27 more miles than Jim. Bob and his father traveled twice as many miles as Jim.

How many miles did Dick travel? ____________
How many miles did Bob travel? ____________

There are 6 rooms in Hillview Grade School. There are 198 children in the school. If each room has an equal number of children, how many children are in each room?

Mary flew 687 miles in an airplane from her home to Aunt Ann's house. She flew the same number of miles coming back. How many miles did she fly in all?

__________________
HOW ARE CET'S RECORDED?

Using the Prescription Sheet on the next page, complete the following statements:

1. The student made a score of _____% in Part 1 of the CET for skill 6, indicating that he __________________________.
   100%; can go on to the next skill

2. His score of _____ on part 2 of the same CET shows that he __________________________.
   0%; will need to work in the next skill

3. The 17 in CET 17 indicates the _____ on which the CET is found in the __________________________.
   page number; STS booklet

4. Skill 7 happens to be the last skill in this unit. Therefore there is no __________________________.
   Part 2 for that CET

5. The scores of _____% and _____% on the first two CET's for skill 7 helped the teacher decide __________________________.
   that the student needed more work in that skill.

6. CET Pad means that the teacher used __________________________
   which is not in the __________________________.
   the CET supplement; STS booklet
<table>
<thead>
<tr>
<th>DATE</th>
<th>PRES. INIT.</th>
<th>SKILL</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/28</td>
<td>D.L</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>3/30</td>
<td>D.L</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>3/31</td>
<td>DL</td>
<td>CET10</td>
<td>1</td>
</tr>
<tr>
<td>4/1</td>
<td>DL</td>
<td>CET13</td>
<td>1</td>
</tr>
</tbody>
</table>

**SKILL IN'**

**DATE**

**PRES.**

**INIT.**

**SKILL NO.**

**PAGE NO.**

**IN'TE'C'**

---

**CURRICULUM TEST: PART 1**

<table>
<thead>
<tr>
<th>TOTAL POINTS</th>
<th>NUMBER CORRECT</th>
<th>NO. OF POINTS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CURRICULUM TEST: PART 2**

<table>
<thead>
<tr>
<th>TOTAL POINTS</th>
<th>NUMBER CORRECT</th>
<th>NO. OF POINTS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**PART 2 OF CET**

**POINTS SCORED/TOTAL POINTS, AND PERCENTAGE**

<table>
<thead>
<tr>
<th>PAGE NUMBER OF CET.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/31</td>
</tr>
</tbody>
</table>

**LAST SKILL IN UNIT SO CET'S HAVE ONLY ONE PART.**

**SUPPLEMENT (SAME AS CET I).**
Complete the statement by selecting the best answer. Refer back to the page numbers when you need more information about any item.

1. CET's are designed to test mastery of (p. 85)
   a. a complete unit.  
   b. one skill in a unit.  

2. Most CET's have two sections. Part 2, below the double line (p. 85, 86)  
   a. gives more details about the skill.  
   b. is a brief pretest of the next skill.  

3. The only CET's without two parts are (p. 86)  
   a. the ones for the first skill in a unit.  
   b. the ones for the last skill in a unit.  

4. When a student scores below 85% on Part 1 of a CET the teacher usually (p. 85)  
   a. assigns additional work in the skill.  
   b. assigns Part 2 of the CET.  

5. There are extra copies of bound in pads for supplementary uses (p. 85)  
   a. CET I  
   b. CET II  

6. The CET I for a skill is (p. 86)  
   a. bound in the STS Booklet  
   b. bound in a pad of identical CET's  
   c. both of the above.  

7. CET 7 indicates (p. 91)  
   a. the number of CET's the student has taken.  
   b. the page number of the STS on which the CET is found. 

92
ANSWERS TO POSTTEST

1. a 4. a
2. b 5. a
3. b 6. c
7. b

Now go back to your packet of IPI materials. Take a Curriculum Embedded Test (CET), score and record it on the Mathematics Prescription Sheet.
CONCLUDING AN IPI UNIT

When a student is finishing a unit, the IPI Posttest is usually the last thing he does. This section will show you how to score and record Posttests and, in addition, show you about the other things which the aide must do before filing the Prescription Sheet for the completed unit.

This section will answer the following questions:

What are IPI Posttests used for?

How many Posttests are there for the IPI Math Continuum.

What does an IPI Posttest consist of?

How are IPI Posttests recorded?

How does the aide record a completed unit?

WHAT ARE IPI POSTTESTS USED FOR?

IPI Posttests are used to measure all the skills in one unit. The teacher decides to posttest a student when information from STS skillsheets and CET's indicates that he will probably be able to pass the test.

Look over the Posttest on the following pages, comparing it with the Pretest for the same student on pages 40 and 45.
IPL MATHMATIC POST-TEST

Name: Lillian Chung  Date: 9/24
Class: 2  Number: 6973

LEVEL C, NUMERATION (01)

Numeration: Directs the student to read, write, count, and put into sequence numbers to 200; and to skip count by 2's, 5's, and 10's to 200 from any starting point.

Fill in the empty boxes. Count down in each column.

<table>
<thead>
<tr>
<th>129</th>
<th>137</th>
<th>145</th>
<th>153</th>
<th>161</th>
<th>169</th>
<th>177</th>
<th>185</th>
</tr>
</thead>
<tbody>
<tr>
<td>130</td>
<td>138</td>
<td>146</td>
<td>154</td>
<td>162</td>
<td>170</td>
<td>178</td>
<td>186</td>
</tr>
<tr>
<td>131</td>
<td>139</td>
<td>147</td>
<td>155</td>
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<td>157</td>
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<td>158</td>
<td>166</td>
<td>174</td>
<td>182</td>
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<td>135</td>
<td>143</td>
<td>151</td>
<td>159</td>
<td>167</td>
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<td>136</td>
<td>144</td>
<td>152</td>
<td>160</td>
<td>168</td>
<td>176</td>
<td>184</td>
<td>192</td>
</tr>
</tbody>
</table>

SAME TYPE OF TEST AS PRETEST, BUT ITEMS ARE DIFFERENT.

<table>
<thead>
<tr>
<th>SKILL 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

95
In each row, fill in the numbers.

<table>
<thead>
<tr>
<th>196</th>
<th>197</th>
<th>198</th>
<th>199</th>
<th>200</th>
</tr>
</thead>
<tbody>
<tr>
<td>99</td>
<td>100</td>
<td>101</td>
<td>102</td>
<td>103</td>
</tr>
<tr>
<td>108</td>
<td>109</td>
<td>110</td>
<td>111</td>
<td>112</td>
</tr>
<tr>
<td>131</td>
<td>132</td>
<td>133</td>
<td>134</td>
<td>135</td>
</tr>
<tr>
<td>157</td>
<td>158</td>
<td>159</td>
<td>160</td>
<td>161</td>
</tr>
</tbody>
</table>

Fill in the blanks to show what numbers come just after, just before, or between.

Just after
28, 29
109, 110
180, 181

Just before
160, 161
197, 196
101, 102

Between
19, 80, 21
175, 176, 177
139, 140, 141
C NUMERATION (01)  POST-TEST

In each row, count by 10’s.

<table>
<thead>
<tr>
<th>87</th>
<th>97</th>
<th>107</th>
<th>117</th>
<th>127</th>
</tr>
</thead>
<tbody>
<tr>
<td>104</td>
<td>114</td>
<td>124</td>
<td>134</td>
<td>144</td>
</tr>
<tr>
<td>160</td>
<td>170</td>
<td>180</td>
<td>190</td>
<td>200</td>
</tr>
</tbody>
</table>

In each row, count by 5’s.

<table>
<thead>
<tr>
<th>80</th>
<th>85</th>
<th>90</th>
<th>95</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>130</td>
<td>135</td>
<td>140</td>
<td>145</td>
</tr>
<tr>
<td>180</td>
<td>185</td>
<td>190</td>
<td>195</td>
<td>200</td>
</tr>
</tbody>
</table>
In each row, count by 2's.

<table>
<thead>
<tr>
<th>78</th>
<th>80</th>
<th>82</th>
<th>84</th>
<th>86</th>
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<td>95</td>
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<td>132</td>
<td>134</td>
<td>136</td>
<td>138</td>
<td>140</td>
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Ring the odd numbers.

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<tr>
<th>7</th>
<th>20</th>
<th>43</th>
<th>168</th>
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<tbody>
<tr>
<td>146</td>
<td>172</td>
<td>56</td>
<td>135</td>
</tr>
</tbody>
</table>
Fill in the numbers in the row. Then, in the circle, write the number you counted by.

- 2's: 116, 118, 120, 122, 124
- 5's: 90, 95, 100, 105, 110
- 10's: 160, 170, 180, 190, 200
- 2's: 92, 94, 96, 98, 100
- 5's: 135, 140, 145, 150, 155
Write the word names for the numbers.

1 one
3 three
5 five
8 eight
10 ten
HOW MANY POSTTESTS ARE THERE FOR THE IPI MATHEMATICS CONTINUUM?

There is a Posttest that parallels the Pretest for every unit in the Continuum except for Level A, which has Posttests but no Pretests.

WHAT DOES A POSTTEST CONSIST OF?

Posttests are printed in blue for easy identification. (Pretests are printed in green.)

The Posttest for a unit is very similar to the Pretest for the same unit. It tests the same skills, and each section of the test contains the same number of items as the Pretest. The problems are not identical, however. At certain times the teacher will decide to use a Posttest in place of a Pretest. The aide then records it according to what it was used for rather than its title.
HOW ARE POSTTESTS RECORDED?

Using the Prescription Sheet on the next page, complete the following statements:

1. Posttest scores are recorded in the same section of the Prescription Sheet as the ____________________________.

   Pretest

2. It is not necessary to write the maximum points per skill for Posttests because there are ____________________________.

   the same number of items for Pretests and Posttests

3. When more than one Prescription Sheet has been used for a unit, Posttest scores and unit dates are recorded on the ____________.

   first sheet

4. Mastery on Posttests is ____________________________.

   85% or above
IF MORE THAN ONE PRESCRIPTION SHEET, POSTTEST SCORES RECORDED ON FIRST SHEET.

PRETESTS AND POSTTESTS HAVE SAME NUMBER OF ITEMS.

POSTTEST SCORES AND PERCENTAGES.

<table>
<thead>
<tr>
<th>SKILL NUMBER</th>
<th>MAX POINTS PER SKILL</th>
<th>PRE SCORE</th>
<th>%</th>
<th>POST SCORE</th>
<th>%</th>
<th>POST SCORE</th>
<th>%</th>
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<th>POST SCORE</th>
<th>%</th>
<th>POST SCORE</th>
<th>%</th>
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<td>1</td>
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DATES 7/26 10/18

MASTERY IS 85% OR ABOVE

WHEN ADDITIONAL POSTTESTS GIVEN, RECORD HERE.

103
HOW DOES THE AIDE RECORD A COMPLETED UNIT?

1. "Mastery" is written by the teacher at the top of the first Prescription Sheet for the unit when ____________. This indicates to the aide that the sheet should be filed. The student is ready for the next unit.

2. Before filing, the aide should fill in the date of ___________ and the number of ___________ days worked.

3. The last prescription for Lillian in the C-Numeration unit was the ___________ on ___________. Sometimes the teacher will prescribe further work after the Posttest. In that case, the aide would use the last prescription date as the "Unit ended" date. The Posttest on October 18th.

4. The "Days worked" is figured from the unit dates, excluding the ___________.

Pretest and Posttest dates and weekends.
<table>
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<tr>
<th>UNIT</th>
<th>CURRICULUM</th>
<th>PART 1</th>
<th>PART 2</th>
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**Mathematics Prescription Sheet**

**Student Name:** Lillian Ching
**Grade:** 2
**Room:** 10
**Unit:** C-Num.
**Master:** Written when student is ready for next unit.

**Pre-Post Test Dates:**

<table>
<thead>
<tr>
<th>Skill</th>
<th>Skill Booklets</th>
<th>Instructional Notes</th>
<th>Total Points</th>
<th>Number Correct</th>
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**Pre/Post Test Scores:**

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**Dates:**

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**Does Not Include Pre-Post Test Dates or Weekends:**

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**Total Points:**

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**Written When Student Is Ready For Next Unit:**

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You may remember that after Placement Testing, the information from the Placement Profile is transferred to the Student Profile (see p.35). As a student completes a unit, the teacher writes "M" and the date of mastery of the unit in the appropriate box. Notice that the dates, starting with C-Geometry, show the order in which the units were prescribed.

The Profile is kept in the student's folder and although the aide does not use it, she should make sure that it is kept up to date. It is often helpful to attach it to a piece of construction paper or tag board since it will be handled often over the period of a school year.
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<td>Sub.</td>
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<tr>
<td>Sub.</td>
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</tr>
</tbody>
</table>
POSTTEST ON CONCLUDING AN IPI UNIT

Choose the best answer for each statement. Refer back to the page numbers when you need more information about any item.

1. There is an IPI Posttest for each_____________. (p.94)
   a. unit
   b. skill

2. In which of the following ways are a Pretest and a Posttest for the same unit unlike each other? (p.102)
   a. They test the same skills.
   b. There are the same number of items for each test.
   c. All items are exact duplicates of those on the Pretest.
   d. Mastery on both tests is 85% for any skill.
   e. They are recorded in the same section of the Prescription Sheet.

3. The teacher writes "Mastery" at the top of the Prescription Sheet (p.104)
   a. automatically after the student takes the Posttest.
   b. When she decides by Posttest scores and other evidence, that the student is ready for the next unit.

4. "Mastery" written at the top of a Prescription Sheet indicates to the aide that she (p.104)
   a. should file the sheet after scoring the Posttest
   b. should file the sheet after filling in the unit date and days worked

108
5. "Days worked" indicates (p. 102, 103)
   a. the exact number of days the student worked in the unit, not including Pretests and Posttests.
   b. the difference between the Pretest date and the Posttest date

6. The last prescription for a unit (p.102)
   a. is always the Posttest
   b. is sometimes not a Posttest

7. "M", for "Mastery", and the date the unit ended is filled in on the student Profile by__________ (p.104)
   a. the teacher
   b. the aide

ANSWERS TO POSTTEST

1. a
2. c
3. b
4. b
5. a
6. b
7. a

Now go back to your packet of IPI materials. Take the Posttest, score and record it. Fill in the rest of the Prescription Sheet so it is ready for filing.
<table>
<thead>
<tr>
<th>STUDENT MATERIAL</th>
<th>USE</th>
<th>LABEL</th>
<th>LOCATION</th>
<th>RECORDED ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement Tests</td>
<td>Tests</td>
<td>Level</td>
<td>Bound in booklets by levels.</td>
<td>Mathematics Placement Profile;</td>
</tr>
<tr>
<td></td>
<td>Levels B-G extensively</td>
<td></td>
<td></td>
<td>Student Profile</td>
</tr>
<tr>
<td>Pretests</td>
<td>Tests</td>
<td>Unit (Level-Area)</td>
<td>Bound in booklets by units.</td>
<td>Mathematics Prescription Sheet</td>
</tr>
<tr>
<td></td>
<td>all skills in a unit intensively</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Teaching</td>
<td>Teaches and gives practice in all skills in every unit as needed.</td>
<td>Unit skill (Level-Area-Skill No)</td>
<td>Bound in booklets by skills.</td>
<td>Math Prescription Sheet</td>
</tr>
<tr>
<td>Sequence (STS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CET</td>
<td>Tests</td>
<td>Unit skill (Level-Area-Skill No.)-Form I or II</td>
<td>Bound in STS Booklet for skill; extra CET I Pad.</td>
<td>Math Prescription Sheet</td>
</tr>
<tr>
<td></td>
<td>One unit skill intensively; (Part I) next skill briefly. (Part 2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posttests</td>
<td>Tests</td>
<td>Unit (Level-Area)</td>
<td>Bound in booklets by units.</td>
<td>Math Prescription Sheet; Mastery of unit on Student Profile.</td>
</tr>
<tr>
<td></td>
<td>All skills in a unit intensively</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GENERAL INFORMATION

As the description on pages 8 and 9 and the filmstrip indicate, the aide is involved in many things as part of her job besides scoring and recording. The largest part of this manual has been concerned with what might be called the "technical" aspects of working with IPI materials. The remainder will describe some other aspects of your job.

AIDE'S RELATIONSHIP TO THE SCHOOL AS A WHOLE

IPI schools may be as different from one another in many respects as any other kinds of schools. Principals, teachers, and aides find ways of working which meet the needs of their school, but which might not happen to work well for another. There are, however, things which have proved useful at other schools which may be of help to yours.

One of the most important ways of making your job run smoothly will be your relationship to the teachers. Each teacher has a slightly different way of working and each will probably have a slightly different relationship with the aide she works with. It is your job to follow the lead of the teacher in terms of classroom routines and the kinds of tasks you perform other than scoring and recording the children's work. You will find your working relationship more comfortable if you can clarify these things as much as possible before you begin. As the year progresses, be ready to discuss changes if the teacher finds things that might work better.

If there is a head aide in your school, she can help work out problems which you are not able to solve through talking with the teacher.
The following suggestions from another handbook for teacher aides* are important ones to keep in mind:

You are responsible to the principal and to the teacher or teachers with whom you work. They are ready to answer questions, supply information, and suggest solutions to problems. The key to the success of this program is the ability of the aide, the teachers, and principal to work together.

A sense of loyalty to the school and a proper regard for professional ethics is essential. Therefore, acquaint yourself with the general policies of the school; maintain strict confidence about the children, children's records, school problems, and your opinions about teachers with whom you work.

A "good relationship" on your part means that you:
1. Become a member of the team in spirit as well as in name.
   a. Strive for a consistent approach in working with children.
      Follow the lead of the teacher.
   b. Build up the teacher in the eyes of the children. She must come first in their thinking; remember, you are her helper.
   c. Do not allow children to circumvent the teacher's directions.
2. Remember that schooling attempts to help children grow in independence as well as in knowledge.
3. Maintain an attitude of encouragement with children. Each child needs success experiences, and each wants to be important.
4. Refer to each child by his name.
5. Work in the positive in matters of discipline.
6. Plan ahead. Try to foresee and prevent trouble before it happens.
7. Be slow to anger. When children are disagreeable to you, it is not generally meant for you personally. They are more often frustrated by the world as they see it.
8. Treat all information about children and families in strictest confidence.

PREPARATION OF MATERIALS FOR TEACHERS

Aides are often asked to prepare materials other than prepared IPI materials for the use of teachers or pupils. This section will describe some of these.

**Seminars**

In many schools IPI teachers hold "Seminars", or full class sessions, once a week. This gives the aides a time to catch up on filing, scoring folders which may have piled up in a rush period, taking inventory, and so forth. The teachers may ask the aides to prepare materials for the seminars, such as charts or other audio-visual aids, or perhaps manipulative materials for the students to use.

**Planning Sessions**

Teachers in most schools have planning sessions once a week in which several teachers get together to discuss such things as ways to help individual children who are having difficulty on certain units, or ways to regroup children. The aide will need to make sure she knows what materials are needed for planning sessions. Flow charts, which are used to help the teachers keep up with each student's progress, are one of the things which the aide must prepare for planning sessions.
<table>
<thead>
<tr>
<th>Name</th>
<th>UNIT AND SKILL NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hom, Richard</td>
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</tr>
<tr>
<td>Mamula, Anthony</td>
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<tr>
<td>Mamula, Anthony</td>
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</tr>
<tr>
<td>Morales, Daniel</td>
<td>D-Num 5</td>
</tr>
<tr>
<td>Morales, Daniel</td>
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<td>D-Cop 3</td>
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<td>Micher, David</td>
<td>D-Cop Post</td>
</tr>
<tr>
<td>Ochs, Sarah</td>
<td>E-PV 2</td>
</tr>
<tr>
<td>Ochs, Sarah</td>
<td>E-Sub 2</td>
</tr>
<tr>
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<td>E-Sub 3</td>
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<tr>
<td>Perez, Mary Ann</td>
<td>D-Frac 5</td>
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<tr>
<td>Perez, Mary Ann</td>
<td>D-Time 2</td>
</tr>
<tr>
<td>Perez, Mary Ann</td>
<td>D-Time 3</td>
</tr>
</tbody>
</table>
Flow Charts

A Flow Chart shows the "flow" of each student's work from week to week. Notice in the samples on the opposite page that Anthony was working on Skill 4 of D-Combination of Processes on April 30th. He has moved on through D-Fractions, Skill 5, and is just beginning on Systems of Measurement for the same Level.

On the other hand, Mary Ann Perez, who was already on D-Fractions, may be having some problems with D-Time, since she has moved rather slowly in this unit.
Flow charts also may be made for several classes or a whole school. This combines the information from the charts for each class, not in terms of each child, but in terms of numbers of children who are working in a particular unit as of a particular date. The chart on page 117 is for all of the third graders in that particular school. As of November of that year there were 14 students in the unit D-Numeral, 4 in D-Place Value, and so forth.

Charts of this kind may be large wall charts, or they may be something like this one. Schools usually develop what is most useful to their own staff.
<table>
<thead>
<tr>
<th>MATHEMATICS AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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</table>
ORGANIZING MATERIALS

Arranging materials so you can get what you need when you need it, will make your life much easier. Many decisions about the arrangement of materials are up to the administrators, but some are up to you. Whatever decisions you do make will be most effective if all the aides discuss them and a decision is made based on all the suggestions which have been made.

Try to have materials organized in a way that makes sense both to you as an adult and to the children, since it is both to your advantage and to the student's if a student is able to obtain his materials easily on his own.

You may want to "color code" the materials on the shelves. For example, labels for Level A will be on blue paper, Level B on orange, and so forth. You can use the same colors for your answer Keys.

Answer Keys

Schools have various ways of keeping answer keys so that a particular test or skill booklet can be located easily. One convenient way is to have a 3 ring notebook for each Unit (for example, C-Numeration), or for each Level (ex: Level E) with pages keyed to Pretest, STS, CET, and Posttest. When students are doing their own scoring there can be one or two additional notebooks in each room containing only STS answer keys.
Another system is to have the key pages filed in a cardboard box, or "transfile" (a cardboard file with handles). These can be moved from class to class on a cart or table with wheels, or can be used in the materials center where they do not need to be moved around. Again each type of material, or each unit should be clearly marked and separated.

Inventory

One of the most annoying problems for a school can be to run out of materials. With the large number of materials used in IPI it may seem like an impossible task to keep such a thing from happening, but with good management it can be kept to a minimum.

There should be a regular day each week when a survey of materials is made so that new ones can be ordered well before the shelves are bare. Each week this need only be a visual survey but a thorough inventory should be taken each month, so that numbers can be planned for the month ahead. Even if one STS skill booklet is completely out, it can mean that new prescriptions have to be written and time is lost by students and teachers. Therefore, whatever method can be devised for keeping ahead of the game will help IPI run more smoothly.

You can set an arbitrary number of materials, say 30, as a point at which new ones are ordered. In some schools a piece of colored paper is placed on top of the first 30 booklets on a shelf. When this paper turns up, it is automatically a signal to order new copies of that item. Materials usually come in cellophane packs of 15. If materials are kept in the wrappers until needed, it not only keeps the shelves happier, but is an easy check on inventory. The time at which an item needs to be ordered will vary with the size of the school and the frequency with which a particular item is used. You can use flow charts (see pages 114 and 117) as a way to check the number of children who are working in each skill or unit.
When checking material on the shelves, it is best not to take it for granted that each item is in its correct place. Remember that upper grade students usually obtain their own materials. They occasionally pull out too many booklets at once and may be careless about putting things back exactly where they belong.

Be sure to check Placement Tests and Pre and Posttests regularly also, even though they may be kept in separate areas.

It is sometimes useful to divide the responsibilities of inventory and other duties so that each aide is in charge of keeping track of one type of material, for example, Pretests, or STS booklets Levels A through C.

Filing

It is recommended that Placement Tests, Placement Profiles, Pretests and Posttests and "Mastered" Prescription Sheets, be put in a permanent file for each student. During Placement testing at the beginning of the year a file folder is made for each student. The completed tests are put in this folder along with the Mathematics Placement Profile (see p.33) after the information has been transferred to the Student Profile (p.35). While a student is working in a unit he keeps all the work for that unit and the Student Profile in his own work folder. When a unit is mastered, the Pretest, Posttest and the Prescription Sheet are all placed in the permanent file so that they are available for teachers to use when needed. The teacher will decide what to do with the completed STS booklets and CET's.

There are always a few work folders left at the end of each IPI class which need corrections, new prescriptions, or new materials. Students can place their folders in different piles at the end of class depending upon what needs to be done. In the materials center, the folders can then be put in boxes or on shelves labeled as follows: "Prescriptions Needed" (for teachers), "To Be Filled", "To Be Corrected", "Ready For Class". All, of course, should be in the "Ready For Class" section by the beginning of the next IPI math period for that room.
CONCLUSION

The job of a teacher aide in an IPI school can be a challenging one if you know your job well and continually find ways to help make things run smoothly. Having gone through the manual once we hope you will continue to refer to it whenever it is useful to do so, and that using it has made your job easier.