

Comprehensive Placement Test for Corrective Mathematics

The *Corrective Mathematics* Comprehensive Placement Test provides a gauge for placing students in SRA's *Corrective Mathematics* series. The Comprehensive Placement Test will determine the correct entry point (both module and lesson) for each student. If the Comprehensive Placement Test is used, it's not necessary to administer the preskill test or the placement tests that are included in the Workbook of each module.

For your convenience, the test is divided into two sections. **Section I** includes: Part A, Addition; Part B, Subtraction; Part C, Multiplication; and Part D, Division. **Section II** includes: Part E, Basic Fractions; Part F, Fractions, Decimals, and Percents; and Part G, Ratios and Equations.

Section I

During two sessions, administer the test either to the entire group or to individuals.

- During the first session, the students will work Parts A and B of the test (addition and subtraction). Allow 20 minutes for this session.
- Give Parts C and D only to those students who make no more than one error on Part A or B. Allow 20 minutes for the second session.

Administration and Scoring of Section I

Step 1

- Make copies of the Comprehensive Placement Test pages for Parts A–D. Distribute the copies.
- Tell the students not to start until you instruct them to start.
- Ask the students to fill in the information called for at the top of the test.

Step 2

- (Tell the students:)
You're going to work Parts A and B of the test today. You'll have 20 minutes.

- Do all the problems you can. Work the problems right on the test sheet. If you have trouble with a problem, skip it and go on to the next problem.
- Read each problem carefully before you work it.
- Remember to do only Parts A and B. Start now.
- (After 20 minutes, tell the students to stop and hand in their tests.)

Step 3

Grade Parts A and B. There are 11 scorable items in Part A and 13 scorable items in Part B.

Look at the answer key that follows. Notice that there is more than one scorable item for some of the problems the students work.

- For all column problems, each column is scored separately. Each column on the answer key is labeled as an item. The answer for each item is in boldface. The first problem counts as one item because there is only one column. The sixth problem counts as four items (8, 9, 10, 11) because there are four columns.
- Each story problem counts as one item.

Answer Key Part A Addition

(Problem 1)

items	①	②	③	④	⑤
	7	9	4	2	3
	+ 1	+ 1	+ 1	3	2
	8	10	5	5	0
				+ 2	+ 1
				12	6

(Problem 6)

items	⑥	⑦	⑧	⑨	⑩	⑪
	3	1	1	3	9	3
	2	2		6	1	6
	5	2	9	4	8	2
	+ 4	1	+	4	3	4
	14	6	11	9	2	5

Answer Key
Part B Subtraction

items ① ② ③ ④ ⑤

$$\begin{array}{r} 4 \quad 8 \quad 3 \qquad \qquad \qquad 7 \quad 6 \\ - \quad \quad \quad \quad \quad \quad \quad 1 \quad 8 \\ \hline \quad \quad \quad \quad \quad \quad \quad 5 \quad 8 \end{array}$$

items ⑥ ⑦ ⑧ ⑨

$$\begin{array}{r} 6 \quad 2 \qquad \qquad \qquad 9 \quad 4 \\ - \quad 5 \qquad \qquad \quad - 2 \quad 8 \\ \hline 5 \quad 7 \qquad \qquad \quad 6 \quad 6 \end{array}$$

items ⑩ ⑪ ⑫ ⑬

234 176 128 154

- Count the errors for Part A, and enter the total in the box following the heading “Errors” on the student’s test packet.
- Count the errors for Part B, and enter the total in the box following the heading “Errors” on the student’s test packet
- Do not administer Parts C and D of the Comprehensive Placement Test to the students who make more than one error on Part A or B. Place those students in either the *Addition* or the *Subtraction* module. See the Placement Directions for specific placement instructions.

Step 4

- Arrange another testing session, and present Parts C and D of the Comprehensive Placement Test. Follow the procedure outlined in Steps 1 and 2. Allow the students up to 20 minutes to complete the test.

Step 50

- Grade Parts C and D of the Comprehensive Placement Test. Notice that on these parts the entire answer to each problem counts as one item. Unit names are not required.

Answer Key
Part C Multiplication

15 8 27 or 27 hours
9 or 9 miles 12 or 12 chairs
387 90 10,935 2106 10,560

Part D Division

4 3 8 or 8 days
4 or 4 hours 4 or 4 times
34 R2 24 56 R6
60 R27 28 R58

Step 6

- Place students who make more than one error on Parts C or D in either the *Multiplication* or the *Division* module. (See Placement Directions.)
- If students make no more than one error on either Part C or D, have them take Parts E, F, and G of the Comprehensive Placement Test. See page 29 for directions.

Placement Directions for
Corrective Mathematics:
Addition, Subtraction, Multiplication,
and Division

Part A—Addition

Total Errors	Lesson
8, 9, 10, or 11	Administer the <i>Addition</i> Preskill Test on page 28. Begin with Lesson 1 if Preskill Test is passed.
6 or 7	Present Transition Lesson 8 in the <i>Addition</i> Teacher’s Presentation Book, and then begin instruction in the <i>Addition</i> module at Lesson 8.
2, 3, 4, or 5	Present Transition Lesson 23 in the <i>Addition</i> Teacher’s Presentation Book, and then begin instruction in the <i>Addition</i> module at Lesson 23.
0 or 1	These students are too proficient for the <i>Addition</i> module. See the chart to determine whether they should be placed in the <i>Subtraction</i> module.

The Addition Preskill Test

The Addition Preskill Test is given to students who made 8 or more errors on Part A of the Placement Test. This test is individually administered and requires about five minutes. It tests students on their ability to count and to identify two-digit numbers. Students who make no more than one error on each section of the test should enter the module at Lesson 1. Students who exceed the error limit should not be placed in the module. *Distar*[®], *Arithmetic I* or *Connecting Math Concepts* would be more appropriate for these students.

Following is the script that should be used for administering the Addition Preskill Test.

Part A

- a. (Write the following numbers on the board or on a sheet of paper:)

17 32 18 56 90 12 39 81

- b. (Point to 17.) **Read the number.** (Signal.)
17.
c. (Repeat step b for the rest of the numbers.)

Part B

- a. **I'm going to count. When I stop counting I want you to keep counting until I tell you to stop.**
b. **7, 8, 9.** (Stop the students when they reach 15.)
c. **16, 17, 18.** (Stop the students when they reach 22.)
d. **36, 37, 38.** (Stop the students when they reach 41.)
e. **88, 89.** (Stop the students when they reach 93.)

Part B—Subtraction

Total Errors	Lesson
11, 12, or 13	Begin with Lesson 1 in the <i>Subtraction</i> module.
5, 6, 7, 8, 9, or 10	Present Transition Lesson 8 in the <i>Subtraction</i> Teacher's Presentation Book, and then begin instruction in the <i>Subtraction</i> module at Lesson 8.
2, 3, or 4	Present Transition Lesson 25 in the <i>Subtraction</i> Teacher's Presentation Book, and then begin instruction in the <i>Subtraction</i> module at Lesson 25.
0 or 1	These students are too proficient for the <i>Subtraction</i> module. Test the students on Parts C and D of the Comprehensive Placement Test.

Part C—Multiplication

Total Errors	Lesson
9 or 10	Begin with Lesson 1 in the <i>Multiplication</i> module.
5, 6, 7, or 8	Present Transition Lesson 10 in the <i>Multiplication</i> Teacher's Presentation Book, and then begin instruction in the <i>Multiplication</i> module at Lesson 10.
2, 3, or 4	Present Transition Lesson 27 in the <i>Multiplication</i> Teacher's Presentation Book, and then begin instruction in the <i>Multiplication</i> module at Lesson 27 .
0 or 1	These students are too proficient for <i>Multiplication</i> . See the following chart to determine whether they should be placed in <i>Division</i> .

Part D—Division

Total Errors	Lesson
9 or 10	Begin with Lesson 1 in the <i>Division</i> module.
5, 6, 7, or 8	Present Transition Lesson 6 in the <i>Division</i> Teacher's Presentation Book, and then begin instruction in the <i>Division</i> module at Lesson 6.
2, 3, or 4	Present Transition Lesson 27 in the <i>Division</i> Teacher's Presentation Book, and then begin instruction in the <i>Division</i> module at Lesson 27.
0 or 1	These students are too proficient for the <i>Division</i> module. Test the students on Section II (Parts E, F, G) of the Comprehensive Placement Test.

Section II

During one session, administer the test either to the entire group or to individuals.

Administration and Scoring of Section II

Step 1

- Make copies of the Comprehensive Placement Test pages for Parts E–G. Distribute the copies.
- Tell the students not to start until you instruct them to start.
- Ask the students to fill in the information called for at the top of the test.

Step 2

- (Tell the students:) **You're going to work Parts E, F, and G of the test today. You'll have 40 minutes to complete the test.**
- **You may work the problems on a separate sheet of paper, but be sure to write your answers on the test.**
- **Do all the problems you can. Work the problems right on the test sheet. If you have trouble with a problem, skip it and go on to the next problem.**
- **Read each problem carefully before you work it.**

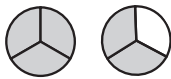
- **Start now.**
- (After 40 minutes, tell the students to stop and hand in their tests.)

Step 3

Grade Section II. Notice that in Part G the answers are not incorrect if the student did not include the word as part of the answer.

Answer Key

Part E Basic Fractions

1.  2. $\frac{6}{7}$ 3. $\frac{8}{8}$ or 1
4. $\frac{6}{4}$ or $\frac{3}{2}$ or $1\frac{2}{4}$ or $1\frac{1}{2}$ 5. $\frac{8}{7}$ or $1\frac{1}{7}$
6. $\frac{23}{4}$ 7. $\frac{22}{5}$ 8. $\frac{27}{10}$ or $2\frac{7}{10}$

Part F Fractions, Decimals, and Percents

1. $\frac{17}{6}$ or $2\frac{5}{6}$ 2. $\frac{2}{3}$ 3. $3\frac{3}{4}$
4. $\frac{6}{8}$ or $\frac{3}{4}$ 5. 20 6. 11.529
7. 87.5% or $87\frac{1}{2}\%$

Part G Ratios and Equations

1. $\frac{21}{20}$ or $1\frac{1}{20}$ or 1.05 meters
2. $\frac{350}{12}$ or $29\frac{2}{12}$ or $29\frac{1}{6}$ meters
3. $6R = 18$ or $R = 3$, $6R = 18$
4. 60
5. $\frac{10}{3}$ or $3\frac{1}{3}$ or 3.33 meters

Placement Directions for *Corrective Mathematics: Basic Fractions; Fractions, Decimals, and Percents; and Ratios and Equations*

Part E—Basic Fractions

Total Errors	Lesson
6, 7, or 8	Begin with Lesson 1 in <i>Basic Fractions</i> .
4 or 5	Begin with Lesson 19 in <i>Basic Fractions</i> .
2 or 3	Begin with Lesson 30 in <i>Basic Fractions</i> .
0 or 1	These students are too proficient for <i>Basic Fractions</i> . See the following chart to determine whether they should be placed in <i>Fractions, Decimals, and Percents</i> .

Part F—Fractions, Decimals, and Percents

Total Errors	Lesson
5, 6, or 7	Begin with Lesson 1 in <i>Fractions, Decimals, and Percents</i> .
2, 3, or 4	Begin with Lesson 30 in <i>Fractions, Decimals, and Percents</i> .
0 or 1	These students are too proficient for <i>Fractions, Decimals, and Percents</i> . See the following chart to determine whether they should be placed in <i>Ratios and Equations</i> .

Part G—Ratios and Equations

Total Errors	Lesson
3, 4, or 5	Begin with Lesson 1 in <i>Ratios and Equations</i> .
0, 1, or 2	These students are too proficient for <i>Ratios and Equations</i> .

Corrective Mathematics Comprehensive Placement Test

Section I Parts A and B

Name _____ Class _____ Date _____

School _____ Tester _____

Part A

Errors

7	9	4	23	31	1393
<u>+ 1</u>	<u>+ 1</u>	<u>+ 1</u>	32	22	616
			50	52	9482
			<u>+ 21</u>	<u>+ 41</u>	<u>+ 434</u>

Part B

Errors

5	9	6	76	62	94
<u>- 1</u>	<u>- 1</u>	<u>- 3</u>	<u>- 18</u>	<u>- 5</u>	<u>- 28</u>

There are 189 red cars and 423 blue cars.
How many more blue cars are there than red cars?

The shop gave away 86 apples. The shop gave away 90 oranges.
How many pieces of fruit did the shop give away?

Ann found 206 pencils. 78 of the pencils were broken.
How many of the pencils were not broken?

146 girls go to our school. There are 300 children altogether in our school.
How many boys go to our school?

Stop.

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Section I Part C

Name _____ Class _____ Date _____

School _____ Tester _____

Part C

Errors

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

Jill worked 3 hours every day. She worked 9 days.
How many hours did she work altogether?

Ann ran 5 miles on Monday. Then she ran 4 miles on Tuesday.
How many miles did she run altogether?

There are 3 chairs in each row. There are 4 rows of chairs.
How many chairs are there altogether?

$$\begin{array}{r} 43 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 405 \\ \times 27 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ \times 39 \\ \hline \end{array}$$

$$\begin{array}{r} 264 \\ \times 40 \\ \hline \end{array}$$

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Section I Part D

Name _____ Class _____ Date _____

School _____ Tester _____

Part D

Errors

$3\overline{)12}$

$9\overline{)27}$

5 buses left Midville each day. 40 buses left in all.
How many days did buses leave Midville?

Fred typed 2 pages each hour. He typed 8 pages.
How many hours did he type?

Every time Betty went jogging, she ran 5 blocks.
She ran 20 blocks. How many times did she go
jogging?

$3\overline{)104}$

$9\overline{)216}$

$48\overline{)2694}$

$54\overline{)3267}$

$82\overline{)2354}$

Stop.

Corrective Mathematics

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Section II Parts E and F

Name _____ Class _____ Date _____

School _____ Tester _____

Part E

Errors

1. Draw the picture for the fraction.

$$\frac{5}{3} = \bigcirc \bigcirc$$

2. $\frac{4}{7} + \frac{2}{7} =$

3. $\frac{10}{8} - \frac{2}{8} =$

4. $\frac{2}{4} \times 3 =$

5. $\frac{2}{7} \times 4 =$

6. $5\frac{3}{4} = \frac{\quad}{4}$

7. $4\frac{2}{5} = \frac{\quad}{5}$

8. $4\frac{1}{2} \times \frac{3}{5} =$

Part F

Errors

1. $2\frac{1}{2} + \frac{1}{3}$

2. Reduce this fraction

$$\frac{14}{21} =$$

3. Write this fraction as a mixed number.

$$\frac{15}{4} =$$

4. $\frac{3}{8} \div \frac{1}{2}$

5. $\frac{4}{\square} = \frac{3}{15}$

6. $3.52 + 6 + 2.009 =$

7. $\frac{7}{8} =$ %

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Section II Part G

Name _____ Class _____ Date _____

School _____ Tester _____

Part G

Errors

1. An oak tree is 5 meters high and makes a $\frac{3}{4}$ meter shadow. A maple tree is 7 meters high. How many meters is its shadow?

2. Pam runs 50 meters in 12 seconds, how far can she run in 7 seconds?

3. $3.5R = 10.5$
Figure out what $6R$ equals.

4. 15% of what number is 9?

5. If 3 boxes contain $2\frac{1}{2}$ meters of wire, how long is the wire in 4 boxes?

Stop.