

Level F Placement Test

The Placement Test provides for three outcomes:

- The student lacks the necessary skills to place in *CMC Level F*.
- The student places at Lesson 1 of *CMC Level F*.
- The student places at Lesson 16 of *CMC Level F*.

The test has two sections: 1 and 2.

Students who have not gone through *CMC Level E* should take Section 1. Results of this section will determine whether each student has the necessary skills to place at Lesson 1. Students who have gone through *CMC Level E* should take Section 2. Results of this section will determine whether a student places at Lesson 1 or Lesson 16 of *Level F*.

If possible, present the Placement Test on the first day of instruction. Pass out a test to each student. Present the wording in the test Administration Directions script.

Note: What you say is shown in blue type. When observing students, make sure that they are working on the correct part of the test. Do not prompt them in a way that would let them know the answer to an item.

Reproducible copies of the test appear at the back of this guide.

CONNECTING MATH CONCEPTS— LEVEL F

PLACEMENT TEST, Section 1

Administration Directions

- (Hand out Placement Test, Section 1 to students. Direct students to put their names on the top of the test.)
- Everybody, find part 1. ✓**
(Teacher reference:)

$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$
$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$

- **For part 1, you'll write answers to multiplication problems. I'll time you. You'll have 1 minute and 30 seconds to write the answers to the problems in part 1.**
- **Pencils ready. Go. ✓**
- (At the end of 1 minute and 30 seconds, say:) **Everybody, stop and put a circle around the last problem you answered. ✓**
- c. **Find part 2. ✓**
(Teacher reference:)

$7\overline{)49}$	$5\overline{)30}$	$8\overline{)24}$	$7\overline{)42}$	$6\overline{)24}$	$6\overline{)48}$	$9\overline{)72}$	$6\overline{)54}$	$7\overline{)63}$	$6\overline{)42}$
$7\overline{)56}$	$8\overline{)80}$	$9\overline{)81}$	$9\overline{)45}$	$9\overline{)63}$	$8\overline{)72}$	$6\overline{)36}$	$3\overline{)24}$	$8\overline{)40}$	$3\overline{)27}$

- **For part 2, you'll write answers to division problems. I'll time you. You'll have 1 minute and 30 seconds to write the answers to the problems in part 2.**
- **Pencils ready. Go. ✓**
- (At the end of 1 minute and 30 seconds, say:) **Everybody, stop and put a circle around the last problem you answered. ✓**

- d. Find part 3. ✓
(Teacher reference:)

a. _____ b. _____ c. _____ d. _____

- I'm going to say numbers. You'll write them on the lines in part 3.
 - Touch line A. ✓
 - Write **1 thousand 92** on line A. ✓
 - Touch line B. ✓
 - Write **18 thousand 400** on line B. ✓
 - Write **9 thousand 2** on line C. ✓
 - Write **14 thousand 60** on line D. ✓
- e. Work the problems in parts 4 and 5 on your own. Pencils down when you're finished. ✓
(Teacher reference:)

Part 4

a. $\begin{array}{r} 4046 \\ - 139 \\ \hline \end{array}$	b. $\begin{array}{r} 8610 \\ - 1420 \\ \hline \end{array}$	c. $\begin{array}{r} 2604 \\ - 793 \\ \hline \end{array}$
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Part 5

a. $\begin{array}{r} 254 \\ \times 7 \\ \hline \end{array}$	b. $\begin{array}{r} 350 \\ \times 9 \\ \hline \end{array}$	c. $\begin{array}{r} 6423 \\ \times 5 \\ \hline \end{array}$
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(Collect and score Placement Test, Section 1.)

PASSING CRITERIA FOR EACH PART

Part	Pass	Not Pass
Part 1	0 to 3 errors	4 or more errors (including problems not worked)
Part 2	0 to 3 errors	4 or more errors (including problems not worked)
Part 3	0 or 1 error	2 or more errors
Part 4	0 or 1 error	2 or more errors
Part 5	0 or 1 error	2 or more errors

PLACEMENT CRITERIA

Students who fail 3 or more parts:	Administer the <i>CMC Level E</i> Placement Test.
Students who pass 3 or more parts:	Begin <i>CMC Level F</i> at Lesson 1.

CONNECTING MATH CONCEPTS— LEVEL F

PLACEMENT TEST, Section 2

Administration Directions

- a. (Hand out Placement Test, Section 2 to students. Direct students to put their names on the top of the test.)
- This is a test. Listen carefully and do your best work.
- b. Touch part 1. ✓
(Teacher reference:)

a. The fraction equals 4. The bottom number is 2. <input type="text"/>	c. There are 12 parts in each unit. Two parts are shaded. <input type="text"/>
b. The fraction is more than 1. The numbers are 5 and 6. <input type="text"/>	d. The numbers are 3 and 8. The fraction is less than 1. <input type="text"/>

- You'll write the fraction for each description. Read each description to yourself, and write the fraction. Pencils down when you're finished. ✓
(Observe but do not give feedback.)
- c. Touch part 2. ✓
(Teacher reference:)

a. $7\overline{)357}$	b. $5\overline{)315}$	c. $2\overline{)804}$
d. $9\overline{)486}$	e. $3\overline{)918}$	

- Work all the division problems. Pencils down when you're finished. (Observe but do not give feedback.)

d. Touch part 3. ✓

(Teacher reference:)

<p>a. $\frac{2}{7} \times \frac{\square}{4} = \square$ b. $\frac{1}{8} \times \frac{6}{\square} = \square$</p> <p>$\square = \square$ $\square = \square$</p>

- The second fraction in each problem equals 1. You'll complete the fraction that equals 1 and then multiply. Below, you'll write a simple equation for the fractions that are equal. Work all the problems. Pencils down when you're finished. (Observe but do not give feedback.)

e. Touch part 4. ✓

(Teacher reference:)

<p>a. Mary is 25 years older than her daughter. <input style="width: 80px;" type="text"/></p> <p>b. Bill owns 110 fewer stamps than Jim. <input style="width: 80px;" type="text"/></p> <p>c. Jill earned \$265 less than Fabio. <input style="width: 80px;" type="text"/></p> <p>d. The store is 12 feet taller than than house. <input style="width: 80px;" type="text"/></p>
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- For each sentence, you'll make a number family with two letters and a number. Read each sentence to yourself and make the families. Pencils down when you're finished. (Observe but do not give feedback.)

f. Touch part 5. ✓

(Teacher reference:)

<p>a. $\frac{3}{4} \times \frac{1}{8} = \square$ b. $\frac{12}{5} + \frac{2}{2} = \square$ c. $\frac{18}{4} + \frac{4}{4} = \square$</p> <p>d. $\frac{8}{8} + \frac{7}{9} = \square$ e. $\frac{20}{3} - \frac{10}{3} = \square$ f. $\frac{9}{2} \times \frac{5}{2} = \square$</p>

- If you can't work a problem the way it is written, cross it out. Then work the rest of the problems. Pencils down when you're finished. (Observe but do not give feedback.)
- g. (Collect and score Placement Test, Section 2.)

SCORING THE TEST

Scoring Chart		Points
Part 1	1 for each item	4
Part 2	1 for each item	5
Part 3	1 for each equation	4
Part 4	1 for each item	4
Part 5	1 for each item crossed out or worked correctly	6
Total		23

PLACEMENT CRITERIA

Students who score 19 points or more:	Begin <i>CMC Level F</i> at Lesson 16
Students who score 18 points or less:	Begin <i>CMC Level F</i> at Lesson 1



errors

CMC Level F Placement Test, Section 1

Name: _____

Part 1

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

$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

Part 2

$$7\overline{)49} \quad 5\overline{)30} \quad 8\overline{)24} \quad 7\overline{)42} \quad 6\overline{)24} \quad 6\overline{)48} \quad 9\overline{)72} \quad 6\overline{)54} \quad 7\overline{)63} \quad 6\overline{)42}$$

$$7\overline{)56} \quad 8\overline{)80} \quad 9\overline{)81} \quad 9\overline{)45} \quad 9\overline{)63} \quad 8\overline{)72} \quad 6\overline{)36} \quad 3\overline{)24} \quad 8\overline{)40} \quad 3\overline{)27}$$

Part 3

a. _____

b. _____

c. _____

d. _____

Part 4

$$\begin{array}{r} \text{a. } 4046 \\ - 139 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b. } 8610 \\ - 1420 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c. } 2604 \\ - 793 \\ \hline \end{array}$$

Part 5

$$\begin{array}{r} \text{a. } 254 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b. } 350 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c. } 6423 \\ \times 5 \\ \hline \end{array}$$

errors

CMC Level F Placement Test, Section 2 Name: _____

Part 1

Write the fraction for each description.

- a. The fraction equals 4.
The bottom number is 2.

- c. There are 12 parts in each unit.
Two parts are shaded.

- b. The fraction is more than 1.
The numbers are 5 and 6.

- d. The numbers are 3 and 8.
The fraction is less than 1.

Part 2

Work each problem.

a. $7\overline{)357}$

b. $5\overline{)315}$

c. $2\overline{)804}$

d. $9\overline{)486}$

e. $3\overline{)918}$

Part 3

Complete the fraction that equals 1. Then multiply. Complete the simple equation below.

a. $\frac{2}{7} \times \frac{\square}{4} = \square$

$\square = \square$

b. $\frac{1}{8} \times \frac{6}{\square} = \square$

$\square = \square$

errors

CMC Level F Placement Test, Section 2 Name: _____

Part 4

Make a number family with two letters and a number.

a. Mary is 25 years older than her daughter.

b. Bill owns 110 fewer stamps than Jim.

c. Jill earned \$265 less than Fabio.

d. The store is 12 feet taller than than house.

Part 5

Cross out the problems you cannot work the way they are written. Then work the rest of the problems.

a. $\frac{3}{4} \times \frac{1}{8} = \text{—}$

b. $\frac{12}{5} + \frac{2}{2} = \text{—}$

c. $\frac{18}{4} + \frac{4}{4} = \text{—}$

d. $\frac{8}{8} + \frac{7}{9} = \text{—}$

e. $\frac{20}{3} - \frac{10}{3} = \text{—}$

f. $\frac{9}{2} \times \frac{5}{2} = \text{—}$

CMC Level F Placement Test Answer Key, Section 1

errors
 CMC Level F Placement Test, Section 1 Name: _____

Part 1

$\frac{6}{36}$	$\frac{8}{72}$	$\frac{8}{64}$	$\frac{7}{35}$	$\frac{9}{81}$	$\frac{9}{63}$	$\frac{6}{48}$	$\frac{4}{36}$	$\frac{6}{24}$	$\frac{7}{63}$
$\frac{8}{56}$	$\frac{7}{49}$	$\frac{6}{42}$	$\frac{8}{48}$	$\frac{9}{54}$	$\frac{7}{56}$	$\frac{4}{28}$	$\frac{9}{72}$	$\frac{6}{54}$	$\frac{4}{32}$

Part 2

$7 \overline{)49}$	$5 \overline{)30}$	$8 \overline{)24}$	$7 \overline{)42}$	$6 \overline{)24}$	$6 \overline{)48}$	$9 \overline{)72}$	$6 \overline{)54}$	$7 \overline{)63}$	$6 \overline{)42}$
$7 \overline{)56}$	$8 \overline{)80}$	$9 \overline{)81}$	$9 \overline{)45}$	$9 \overline{)63}$	$8 \overline{)72}$	$6 \overline{)36}$	$3 \overline{)24}$	$8 \overline{)40}$	$3 \overline{)27}$

Part 3

a. 1092 b. 18,400 c. 9002 d. 14,060
 [no comma is ok] [no comma is ok]

Part 4

a. $\begin{array}{r} 4046 \\ - 139 \\ \hline 3907 \end{array}$	b. $\begin{array}{r} 8610 \\ - 1420 \\ \hline 7190 \end{array}$	c. $\begin{array}{r} 26104 \\ - 793 \\ \hline 1811 \end{array}$
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Part 5

a. $\begin{array}{r} 254 \\ \times 7 \\ \hline 1778 \end{array}$	b. $\begin{array}{r} 350 \\ \times 9 \\ \hline 3150 \end{array}$	c. $\begin{array}{r} 6423 \\ \times 5 \\ \hline 32115 \end{array}$
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Connecting Math Concepts Placement Test 1

CMC Level F Placement Test Answer Key, Section 2

errors
 CMC Level F Placement Test, Section 2 Name: _____

Part 1 Write the fraction for each description.

a. The fraction equals 4. The bottom number is 2. $\frac{8}{2}$

b. The fraction is more than 1. The numbers are 5 and 6. $\frac{6}{5}$

c. There are 12 parts in each unit. Two parts are shaded. $\frac{2}{12}$

d. The numbers are 3 and 8. The fraction is less than 1. $\frac{3}{8}$

Part 2 Work each problem.

a. $7 \overline{)51}$	b. $5 \overline{)315}$	c. $2 \overline{)804}$
d. $9 \overline{)486}$	e. $3 \overline{)918}$	

Part 3 Complete the fraction that equals 1. Then multiply. Complete the simple equation below.

a. $\frac{2}{7} \times \frac{4}{4} = \frac{8}{28}$	b. $\frac{1}{8} \times \frac{6}{6} = \frac{6}{48}$
$\frac{2}{7} = \frac{8}{28}$	$\frac{1}{8} = \frac{6}{48}$

2 Placement Test Connecting Math Concepts

errors
 CMC Level F Placement Test, Section 2 Name: _____

Part 4 Make a number family with two letters and a number.

a. Mary is 25 years older than her daughter. $\frac{25}{d} \rightarrow M$

b. Bill owns 110 fewer stamps than Jim. $\frac{110}{B} \rightarrow J$

c. Jill earned \$265 less than Fabio. $\frac{265}{J} \rightarrow F$

d. The store is 12 feet taller than than house. $\frac{12}{h} \rightarrow S$

Part 5 Cross out the problems you cannot work the way they are written. Then work the rest of the problems.

a. $\frac{3}{4} \times \frac{1}{8} = \frac{3}{32}$	b. $\frac{12}{5} \times \frac{2}{2} = \dots$	c. $\frac{18}{4} + \frac{4}{4} = \frac{22}{4}$
d. $\frac{8}{8} \times \frac{7}{9} = \dots$	e. $\frac{20}{3} - \frac{10}{3} = \frac{10}{3}$	f. $\frac{9}{2} \times \frac{5}{2} = \frac{45}{4}$

Connecting Math Concepts Placement Test 3