Appendix A

Placement Test

Appendix A: Placement Test

The Placement Test provides for three outcomes:

- The student lacks the necessary skills to place in *CMC Level E*.
- The student places at Lesson 1 of *CMC Level E*.
- The student places at Lesson 31 of *CMC Level E*.

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 on pages 198–201 of this guide.

Connecting Math Concepts—Level E

PLACEMENT TEST

Administration Directions

> ***Note:*** You will need a stopwatch or a clock with a second hand for Parts 2 and 3.

a. (Hand out Placement Test to students. Direct students to put their names at the top of the test.)

- Everybody, find Part 1. ✔

(Teacher reference:)

a. _____	c. _____	e. _____	g. _____
b. _____	d. _____	f. _____	h. _____

- I'm going to say numbers. You'll write them on the lines in Part 1.
- Touch line A. ✔
- Write 302 on line A. ✔
- Touch line B. ✔
- Write 217 on line B. ✔
- (Repeat for remaining numbers: C, 409; D, 3,640; E, 1,054.)

b. Now, I'm going to say dollar amounts. You'll write the amounts with a dollar sign and a decimal point.

- Listen: 7 dollars and 45 cents. Say that amount. (Signal.) *Seven dollars and 45 cents.*
- Write 7 dollars and 45 cents on line F. ✔
- Listen: 20 dollars and 16 cents. Say that amount. (Signal.) *20 dollars and 16 cents.*
- Write 20 dollars and 16 cents on line G. ✔
- Listen: 8 cents. Say that amount. (Signal.) *8 cents.*
- Write 8 cents on line H. Write it with a dollar sign and a decimal point. ✔

c. Find Part 2. ✔

(Teacher reference:)

a. 14 − 9	b. 8 − 4	c. 5 + 5	d. 15 − 8	e. 11 − 9	f. 9 + 3	g. 6 + 7	h. 13 − 5	i. 9 − 8	j. 14 − 8
k. 6 + 4	l. 13 − 9	m. 9 + 4	n. 11 − 3	o. 2 + 6	p. 3 + 8	q. 4 + 9	r. 5 + 5	s. 7 + 9	t. 5 + 8
u. 8 + 8	v. 13 − 6	w. 11 − 2	x. 6 + 5	y. 7 + 8	z. 3 + 9	A. 6 + 9	B. 11 − 3	C. 6 + 8	D. 2 + 9

For Part 2, you'll write answers to addition and subtraction problems. I'll time you. You'll have 2 minutes and 30 seconds to write the answers to the problems in Part 2.

- Pencils ready. Go. ✔
- (At the end of 2 minutes and 30 seconds, say:) Everybody, stop and put a circle around the last problem you answered. (Observe students.)

d. Find Part 3. ✔

(Teacher reference:)

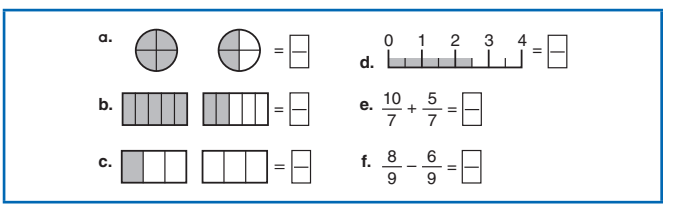
a. 5 × 3	b. 9 × 2	c. 2 × 4	d. 7 × 1	e. 5 × 6	f. 7 × 2	g. 5 × 9	h. 4 × 3	i. 5 × 5	j. 2 × 6
k. 4 × 4	l. 9 × 3	m. 2 × 8	n. 8 × 5	o. 4 × 2	p. 9 × 4	q. 7 × 5	r. 2 × 5	s. 3 × 3	t. 1 × 8
u. 6 × 3	v. 6 × 6	w. 7 × 3	x. 8 × 1	y. 4 × 6	z. 3 × 8	A. 6 × 4	B. 2 × 9	C. 6 × 5	D. 3 × 9

For Part 3, you'll write answers to multiplication problems. I'll time you. You'll have 2 minutes and 30 seconds to write the answers to the problems in Part 3.

- Pencils ready. Go. ✔
- (At the end of 2 minutes and 30 seconds, say:) Everybody, stop and put a circle around the last problem you answered. (Observe students.)

e. Find Part 4. ✔

(Teacher reference:)



Some of these problems show pictures of fractions. Some of them are problems that add or subtract fractions.

- Write the fraction for each picture. Complete the equation for the fraction problems. Then work the problems in Parts 5 through 12 on your own. Pencils down when you're done.

Passing Criteria for Each Part

Part	Description	#	Pass	Fail
Part 1	Writing 3 and 4 digit numbers and dollar values	8	0–2 errors	3 or more errors
Part 2	Addition and subtraction facts	30	0–5 errors	6 or more errors
Part 3	Multiplication facts	30	0–5 errors	6 or more errors
Part 4	Fraction from pictures and ± fraction problems	6	0–2 errors	3 or more errors
Part 5	Column ± with carrying and borrowing	7	0–3 errors	4 or more errors
Part 6	Division facts	15	0–3 errors	4 or more errors
Part 7	Column multiplication 2 digit × 1 digit and multi-digit × 10	5	0–2 errors	3 or more errors
Part 8	Division: 3 digit ÷ by 1 digit with no remainders	5	0–2 errors	3 or more errors
Part 9	Completing the numerators for whole numbers and equivalent fractions they equal	8	0–2 errors	3 or more errors
Part 10	Comparison and sequence word problems	4	0–1 error	2 or more errors
Part 11	Area and perimeter of rectangles: 1 digit lengths with units	6	0–2 errors	3 or more errors
Part 12	<, >, = for 2 whole numbers or a fraction and 1	6	0–2 errors	3 or more errors

Placement Criteria

Students who pass 10 or 11 parts.	Begin *CMC Level E* at Lesson 31. **Note:** If possible, group students according to the number of parts passed.
Students who pass 6, 7, 8, or 9 parts or who have a total score of 80 points or more.	Begin *CMC Level E* at Lesson 1.
Students who pass 5 or fewer parts.	Administer the *CMC Level D* Placement Test

☐ errors

CMC Level E Placement Test Name _____ Date _____

Part 1

a. _____ **c.** _____ **e.** _____ **g.** _____

b. _____ **d.** _____ **f.** _____ **h.** _____

Part 2

a. 14 − 9	**b.** 8 − 4	**c.** 5 + 5	**d.** 15 − 8	**e.** 11 − 9	**f.** 9 + 3	**g.** 6 + 7	**h.** 13 − 5	**i.** 9 − 8	**j.** 14 − 8
k. 6 + 4	**l.** 13 − 9	**m.** 9 + 4	**n.** 11 − 3	**o.** 2 + 6	**p.** 3 + 8	**q.** 4 + 9	**r.** 5 + 5	**s.** 7 + 9	**t.** 5 + 8
u. 8 + 8	**v.** 13 − 6	**w.** 11 − 2	**x.** 6 + 5	**y.** 7 + 8	**z.** 3 + 9	**A.** 6 + 9	**B.** 11 − 3	**C.** 6 + 8	**D.** 2 + 9

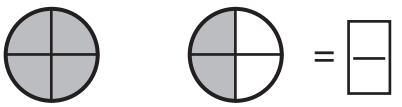
Part 3

a. 5 × 3	**b.** 9 × 2	**c.** 2 × 4	**d.** 7 × 1	**e.** 5 × 6	**f.** 7 × 2	**g.** 5 × 9	**h.** 4 × 3	**i.** 5 × 5	**j.** 2 × 6
k. 4 × 4	**l.** 9 × 3	**m.** 2 × 8	**n.** 8 × 5	**o.** 4 × 2	**p.** 9 × 4	**q.** 7 × 5	**r.** 2 × 5	**s.** 3 × 3	**t.** 1 × 8
u. 6 × 3	**v.** 6 × 6	**w.** 7 × 3	**x.** 8 × 1	**y.** 4 × 6	**z.** 3 × 8	**A.** 6 × 4	**B.** 2 × 9	**C.** 6 × 5	**D.** 3 × 9

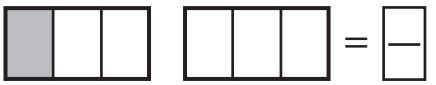
☐ errors

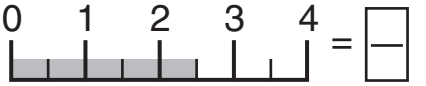
CMC Level E Placement Test Name _____ Date _____

Part 4

a.  = ☐

b.  = ☐

c.  = ☐

d.  = ☐

e. $\frac{10}{7} + \frac{5}{7} =$ ☐

f. $\frac{8}{9} - \frac{6}{9} =$ ☐

Part 5

a. 64 + 533

b. 54 − 17

c. 591 + 64

d. 418 + 79

e. 420 − 190

f. 752 − 36

g. 149 + 353

Part 6

a. $8\overline{)16}$ **b.** $4\overline{)36}$ **c.** $7\overline{)7}$ **d.** $5\overline{)30}$ **e.** $2\overline{)14}$ **f.** $9\overline{)27}$ **g.** $8\overline{)24}$ **h.** $5\overline{)40}$ **i.** $6\overline{)60}$ **j.** $7\overline{)42}$ **k.** $7\overline{)35}$ **l.** $2\overline{)18}$ **m.** $6\overline{)24}$ **n.** $5\overline{)20}$ **o.** $4\overline{)8}$

Part 7

a. 24 × 5 **b.** 36 × 2 **c.** 13 × 9 **d.** 10 + 720 **e.** 38 × 10

☐ errors

CMC Level E Placement Test Name _____ Date _____

Part 8

a. $2\overline{)806}$ **b.** $3\overline{)159}$ **c.** $4\overline{)208}$ **d.** $3\overline{)369}$ **e.** $9\overline{)369}$

Part 9

a. $3 = \frac{\quad}{1} = \frac{\quad}{3} = \frac{\quad}{9} = \frac{\quad}{10}$ **b.** $4 = \frac{\quad}{2} = \frac{\quad}{8} = \frac{\quad}{1} = \frac{\quad}{3}$

Part 10

a. Carlos is 14 years younger than James.
Carlos is 25 years old. How old is James?

b. Anna read 12 more books than Maria. Anna read 43 books. How many books did Maria read?

c. A bus had some people on it.
34 people got off of the bus. The bus ended up with 43 people on it. How many people were on the bus to start with?

d. A train had some people on it. Then 55 people got on the train. The train ended up with 89 people. How many people did the train start with?

☐ errors

CMC Level E Placement Test Name _____ Date _____

Part 11 Figure out the area and the perimeter for each rectangle.

a.

area: _____

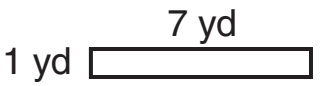
perimeter: _____

b.

area: _____

perimeter: _____

c.



area: _____

perimeter: _____

Part 12 Write <, >, or = to complete each statement.

a. 12 ☐ 10

b. 39 ☐ 47

c. 108 ☐ 151

d. $\frac{4}{4}$ ☐ 1

e. $\frac{3}{2}$ ☐ 1

f. $\frac{7}{9}$ ☐ 1

CMC Level E Placement Test Answer Key

(varies) errors

CMC Level E Placement Test Name _____ Date _____

Part 1

a. 302 c. 409 e. 1054 g. $20.16

b. 217 d. 3640 f. $7.95 h. $.08

Part 2

a. 14 − 9 = 5	b. 8 − 4 = 4	c. 5 + 5 = 10	d. 15 − 8 = 7	e. 11 − 9 = 2	f. 9 + 3 = 12	g. 6 + 7 = 13	h. 13 − 5 = 8	i. 9 − 8 = 1	j. 14 − 8 = 6
k. 6 + 4 = 10	l. 13 − 9 = 4	m. 9 + 4 = 13	n. 11 − 3 = 8	o. 2 + 6 = 8	p. 3 + 8 = 11	q. 4 + 9 = 13	r. 5 + 5 = 10	s. 7 + 9 = 16	t. 5 + 8 = 13
u. 8 + 8 = 16	v. 13 − 6 = 7	w. 11 − 2 = 9	x. 6 + 5 = 11	y. 7 + 8 = 15	z. 3 + 9 = 12	A. 6 + 9 = 15	B. 11 − 3 = 8	C. 6 + 8 = 14	D. 2 + 9 = 11

Part 3

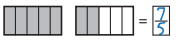
a. 5 × 3 = 15	b. 9 × 2 = 18	c. 2 × 4 = 8	d. 7 × 1 = 7	e. 5 × 6 = 30	f. 7 × 2 = 14	g. 5 × 9 = 45	h. 4 × 3 = 12	i. 5 × 5 = 25	j. 2 × 6 = 12
k. 4 × 4 = 16	l. 9 × 3 = 27	m. 2 × 8 = 16	n. 8 × 5 = 40	o. 4 × 2 = 12	p. 9 × 4 = 36	q. 7 × 5 = 35	r. 2 × 5 = 10	s. 3 × 3 = 9	t. 1 × 8 = 8
u. 6 × 3 = 18	v. 6 × 6 = 36	w. 7 × 3 = 21	x. 8 × 1 = 8	y. 4 × 6 = 24	z. 3 × 8 = 24	A. 6 × 4 = 24	B. 2 × 9 = 18	C. 6 × 5 = 30	D. 3 × 9 = 27

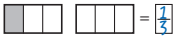
(varies) errors

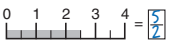
CMC Level E Placement Test Name _____ Date _____

Part 4

a.  = 6/4

b.  = 7/5

c.  = 1 1/3

d.  = 5/2

e. 10/7 + 5/7 = 15/7

f. 8/9 − 6/9 = 2/9

Part 5

a. 64 + 533 = 597	c. 591 + 64 = 655	e. 420 − 190 = 230	g. 149 + 353 = 502
b. 54 − 17 = 37	d. 418 + 79 = 497	f. 752 − 36 = 716	

Part 6

a. 2 r 16	d. 6 r 30	g. 3 r 24	j. 6 r 42	m. 4 r 24
b. 9 r 36	e. 7 r 14	h. 8 r 40	k. 5 r 35	n. 4 r 20
c. 1 r 7	f. 3 r 27	i. 10 r 60	l. 9 r 18	o. 2 r 8

Part 7

a. 24 × 5 = 120	b. 36 × 2 = 72	c. 13 × 9 = 117	d. 10 + 720 = 730	e. 38 × 10 = 380

(varies) errors

CMC Level E Placement Test Name _____ Date _____

Part 8

a. 403 r 2 b. 53 r 3 c. 52 r 4 d. 123 r 3 e. 41 r 9

Part 9

a. 3 = 3/1 = 9/3 = 27/9 = 30/10

b. 4 = 8/2 = 32/8 = 4/1 = 12/3

Part 10

a. Carlos is 14 years younger than James. Carlos is 25 years old. How old is James?

14 C → J 25 C; 14 + 25 = 39 years

b. Anna read 12 more books than Maria. Anna read 43 books. How many books did Maria read?

12 M → A 43 C; 43 − 12 = 31 books

c. A bus had some people on it. 34 people got off of the bus. The bus ended up with 43 people on it. How many people were on the bus to start with?

34 S → S 43 C; 34 + 43 = 77 people

d. A train had some people on it. Then 55 people got on the train. The train ended up with 89 people. How many people did the train start with?

55 S → S 89 C; 89 − 55 = 34 people

(varies) errors

CMC Level E Placement Test Name _____ Date _____

Part 11 Figure out the area and the perimeter for each rectangle.

a. 2 in. × 6 in.

area: 2 × 6 = 12 sq in.

perimeter: 2 + 6 + 2 + 6 = 16 in.

b. 4 ft × 5 ft

area: 4 × 5 = 20 sq ft

perimeter: 4 + 5 + 4 + 5 = 18 ft

c. 1 yd × 7 yd

area: 1 × 7 = 7 sq yd

perimeter: 1 + 7 + 1 + 7 = 16 yd

Part 12 Write <, >, or = to complete each statement.

a. 12 > 10

b. 39 < 47

c. 108 < 151

d. 4/4 = 1

e. 3/2 > 1

f. 7/9 < 1