

## Assessment 1

Answer questions 1–40. Answer questions outlined in green in your test book. Answer all other questions on the Answer Form.

**1** Identify equivalent measures.

### **Part A**

Which measures are equivalent to 10 meters? Mark all that apply.

- A** 0.01 kilometer
- B** 1,000 millimeters
- C** 100 millimeters
- D** 1,000 centimeters

### **Part B**

Which measures are equivalent to 3 feet? Mark all that apply.

- A** 36 inches
- B** 15 inches
- C** 1 yard
- D**  $\frac{1}{3}$  yard

**Go On**

**Part A**

Which numbers round to 0.1 when rounded to the nearest tenth? Mark all that apply.

- A** 0.09
- B** 0.95
- C** 0.99
- D** 1.04

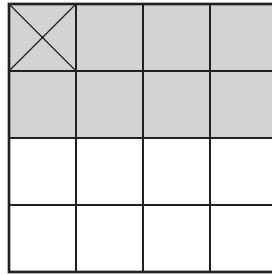
**Part B**

Which numbers round to 0.02 when rounded to the nearest hundredth? Mark all that apply.

- A** 0.025
- B** 0.023
- C** 0.026
- D** 0.019

**3**

Yahir has  $\frac{1}{2}$  gallon of iced tea in a pitcher. He plans to pour  $\frac{1}{16}$  gallon into a drinking glass.



What fraction of a gallon will Yahir have left in the pitcher?

- A**  $\frac{7}{8}$
- B**  $\frac{7}{16}$
- C**  $\frac{1}{14}$
- D**  $\frac{1}{16}$

**Go On**

**4** John bought a rectangular doormat that was  $\frac{1}{2}$  meter long and  $\frac{3}{10}$  meter wide.

**Part A**

Draw a diagram to show the area of the mat.

**Part B**

What is the area of the doormat?

**Answer** \_\_\_\_\_ square meter

**Part C**

Suppose the doormat has a design on it that divides it into squares measuring  $\frac{1}{10}$  meter by  $\frac{1}{10}$  meter. How many squares is the doormat divided into?

**Answer** \_\_\_\_\_ squares

**Part D**

Now find the area of the doormat by multiplying the number of squares the doormat is divided into by the area of one square.

**Show your work.**

**Answer** \_\_\_\_\_

How does the area you found here compare with the area you found in *Part B*? Explain why it is either the same or different.

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**5**

The inside of a cooler is in the shape of a rectangular prism. The inside of the cooler is 20 inches wide, 14 inches high, and 12 inches long. What is the volume, in cubic inches, of the inside of the cooler?

$$V = l \times w \times h$$

**Show your work.**

**Answer** \_\_\_\_\_ cubic inches

**Go On**

**6**

Which expressions represent the statement “three minus the product of seven and four”? Mark all that apply.

**A**  $3 - (7 \times 4)$

**B**  $(7 \times 4) - 3$

**C**  $3 - (4 \div 7)$

**D**  $3 - (4 \times 7)$

**E**  $(7 \div 4) - 3$

**Part A**

What is the value of the expression  $(4 \times 5) + (10 \times 30)$ ?

**A** 49

**B** 90

**C** 320

**D** 900

**Part B**

What is the value of the expression  $2 \times (3 \times 5) - (8 \times 3)$ ?

**A** 4

**B** 6

**C** 21

**D** 42

**8**

Ivan has just opened a small coffee shop. He paid a copy store \$0.10 per copy to make 1,428 copies of the flyer to announce the opening of the shop. Ivan is having 14 of his friends distribute all of the flyers, and he is paying them \$0.25 for each flyer. He gave each friend the same number of flyers.

**Part A**

What is the total amount Ivan is paying each friend to distribute his or her share of the flyers?

**Show your work.**

**Answer \$** \_\_\_\_\_

**Part B**

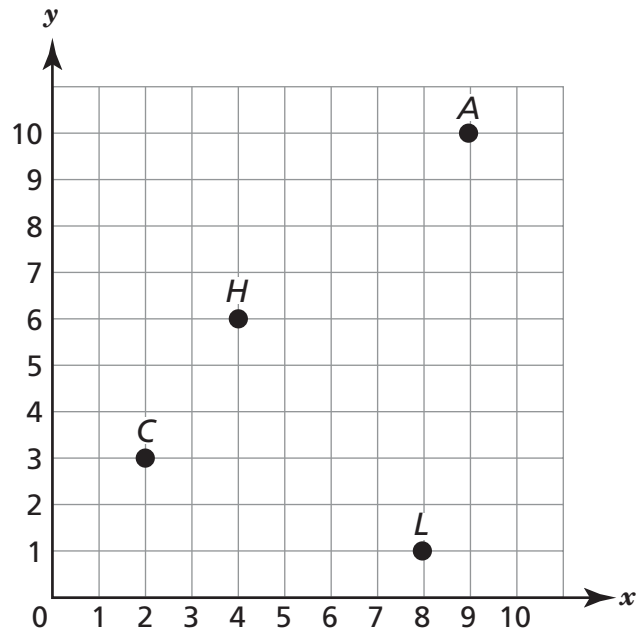
What is the total cost for making all of the copies and paying all of his friends?

**Show your work.**

**Answer \$** \_\_\_\_\_

**Go On**

- 9** The locations of four points are shown below.



**Part A**

Which statements about the points'  $x$ -coordinates are true? Mark all that apply.

- A** The  $x$ -coordinate of point  $L$  is greater than the  $x$ -coordinate of point  $H$ .
- B** The  $x$ -coordinate of point  $C$  is greater than the  $x$ -coordinate of point  $A$ .
- C** The  $x$ -coordinate of point  $H$  is greater than the  $x$ -coordinate of point  $L$ .
- D** The  $x$ -coordinate of point  $A$  is greater than the  $x$ -coordinate of point  $L$ .

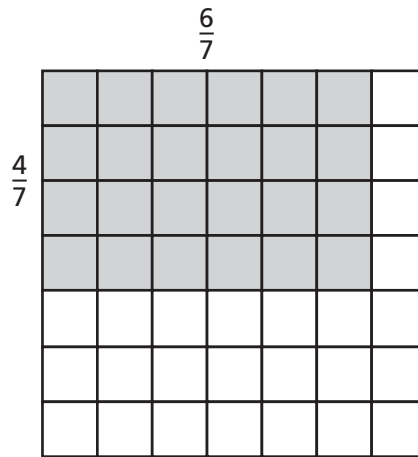
**Part B**

Which statements about the points'  $y$ -coordinates are true? Mark all that apply.

- A** The  $y$ -coordinate of point  $C$  is greater than the  $y$ -coordinate of point  $H$ .
- B** The  $y$ -coordinate of point  $H$  is greater than the  $y$ -coordinate of point  $L$ .
- C** The  $y$ -coordinate of point  $L$  is greater than the  $y$ -coordinate of point  $H$ .
- D** The  $y$ -coordinate of point  $A$  is greater than the  $y$ -coordinate of point  $C$ .



- 10** The shaded region in the figure below is  $\frac{4}{7}$  unit wide and  $\frac{6}{7}$  unit long.



What is the area of the shaded region?

- A**  $\frac{24}{49}$  square unit
- B**  $\frac{25}{49}$  square unit
- C**  $1\frac{3}{7}$  square units
- D**  $3\frac{3}{7}$  square units

**Go On**

**Part A**

What is the product  $3,614 \times 272$ ?

- A** 983,008
- B** 980,560
- C** 958,528
- D** 956,080

**Part B**

What is the product  $5,891 \times 458$ ?

- A** 2,693,956
- B** 2,698,078
- C** 2,739,298
- D** 2,743,878

**12** Amy had homework for math, science, and history. She spent  $\frac{1}{3}$  of her time working on math and  $\frac{1}{4}$  of her time working on science.

**Part A**

Amy estimated that she spent  $\frac{1}{7}$  of her time on both math and science homework. Without doing any calculations, determine whether or not Amy's estimate is accurate and explain why or why not.

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**Part B**

How much of her time did Amy spend working on history?

**Show your work.**

**Answer** \_\_\_\_\_

**Part C**

Did Amy spend more time working on both her math and science homework or on her history homework? Explain.

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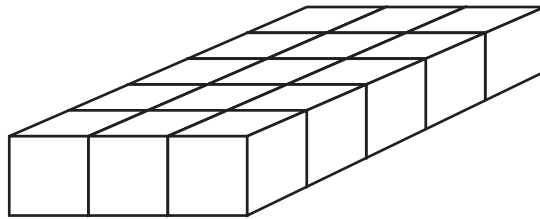
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**Go On**

**13** Which expression has the greatest number of zeros when the number is written in standard form?

- A**  $10,000 \times 10^9$
- B**  $7,000 \times 10^9$
- C**  $42 \times 10^{12}$
- D**  $20 \times 10^{10}$

**14** The figure below is made of 1-centimeter cubes.



What is the volume of the figure?

- A**  $3 \text{ cm}^3$
- B**  $5 \text{ cm}^3$
- C**  $12 \text{ cm}^3$
- D**  $15 \text{ cm}^3$

**Part A**

Which terms describe **every** rectangle? Mark all that apply.

- A square
- B quadrilateral
- C parallelogram
- D equilateral

**Part B**

Which terms describe **every** trapezoid? Mark all that apply.

- A quadrilateral
- B closed figure
- C parallelogram
- D rectangle

**16** Ms. Whittier wrote the following on the board:

*the product of 6 and the sum of 4 and 5*

She asked the students in her class to write an expression to represent what she wrote.

**Part A**

Sherry wrote the following expression:

$$6 \times 4 + 5$$

Did Sherry write a correct expression? Explain why or why not.

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**Part B**

Write two different expressions to represent what Ms. Whittier wrote. Explain how you know they are both correct.

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**Part C**

Describe how using parentheses in a numerical expression can affect its meaning. Give an example of when you would need to use parentheses in an expression and when you would not need to.

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**17**

Which problem is *best* modeled by the expression  $7 \div \frac{1}{4}$ ?

- A** Mr. Lee gave 7 drum lessons yesterday. If each lesson lasted  $\frac{1}{4}$  hour, how much time did he spend giving lessons?
- B** Mr. Lee spent  $\frac{1}{4}$  hour teaching a drum lesson. If he spent the same amount of time teaching each of 7 skills, how much time did he spend on each skill?
- C** Mr. Lee spent 7 hours giving drum lessons yesterday. If each lesson lasted  $\frac{1}{4}$  hour, how many lessons did he give?
- D** Mr. Lee spent 7 hours giving drum lessons yesterday. If he spent  $\frac{1}{4}$  of the time working with Marcia, how much time did he spend teaching Marcia?

**18**

Consider the rules for the two numerical patterns given below.

Pattern A: Start with 0 and add 4 to get the next term.

Pattern B: Start with 0 and add 12 to get the next term.

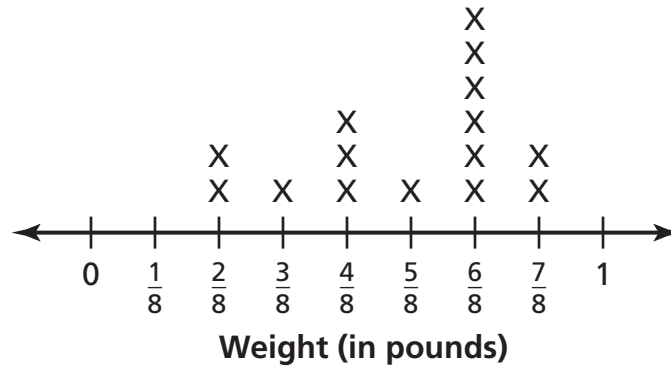
Which statement describes the relationship between the corresponding terms of the two patterns?

- A** Each term of Pattern B is three times the corresponding term of Pattern A.
- B** Each term of Pattern A is three times the corresponding term of Pattern B.
- C** Each term of Pattern A is 12 more than the corresponding term of Pattern B.
- D** Each term of Pattern B is 8 more than the corresponding term of Pattern A.

**Go On**

**19**

Mrs. Jackson is filling small containers from a large basket of strawberries. She fills each container and then weighs it. She records the weight of each container in pounds and sorts them by weight. The line plot shows the number of containers with each weight.

**Part A**

What is the total weight of all the containers that weigh  $\frac{6}{8}$  pound?

- A  $\frac{3}{4}$  pound
- B  $\frac{6}{7}$  pound
- C  $4\frac{1}{4}$  pounds
- D  $4\frac{1}{2}$  pounds

**Part B**

Which statements about the data are correct? Mark all that apply.

- A The total weight of the two lightest containers is  $\frac{5}{8}$  pound.
- B The difference in weights between the lightest and heaviest containers is  $\frac{5}{8}$  pound.
- C Exactly half of the containers weigh more than  $\frac{5}{8}$  pound each.
- D The total weight of the containers weighing  $\frac{4}{8}$  pound is  $1\frac{1}{2}$  pounds.



**20**

Penn buys 3 large sandwiches to serve at a party. He cuts the sandwiches into equal pieces and serves  $\frac{1}{4}$  sandwich to each guest.

**Part A**

Each of these rectangles represents one whole sandwich. Draw lines in the model to show how Penn divided the sandwiches for his party.

**Part B**

Penn did not eat any of the sandwiches. Write an equation to represent the number of guests,  $g$ , Penn served if he had no leftovers.

**Equation** \_\_\_\_\_

**Part C**

To how many guests did Penn serve sandwiches?

**Show your work.**

**Answer** \_\_\_\_\_

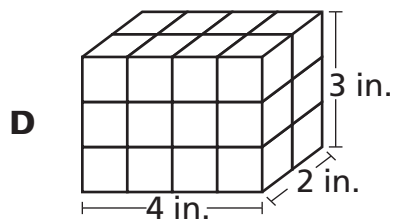
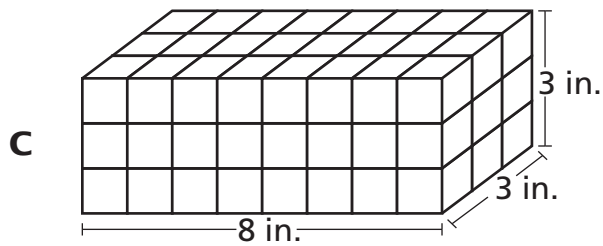
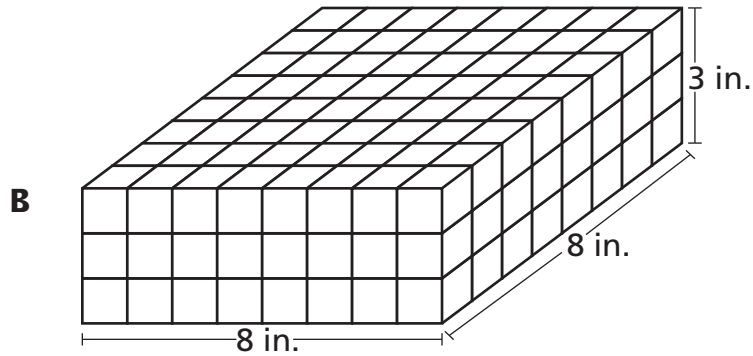
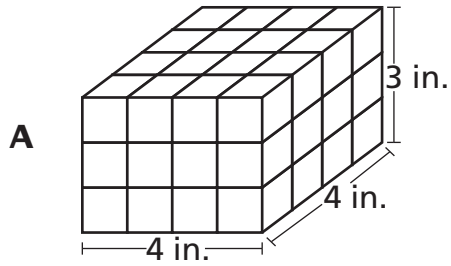
**Go On**

- 21** Emiyo writes the multiplication sentence  $50 \times 30 = 1,500$  as a first step in finding the quotient  $1,590 \div 30$ . She knows that 50 is part of the quotient. Then she writes a second multiplication sentence to find the other part of the quotient to add to 50. What is the product in the second multiplication sentence Emiyo writes?

**Show your work.**

**Answer** \_\_\_\_\_

For which solid figure can the volume be found by multiplying 3 inches by 8 square inches? Figures are not drawn to scale.



**23** This year, Ansel earned  $\frac{19}{17}$  of what he earned last year. Which conclusion about Ansel's earnings is correct?

- A** We don't know in which year Ansel earned more because his earnings last year are not given.
- B** Ansel earned the same this year as last year because  $\frac{19}{17}$  is close to 1.
- C** Ansel earned less this year than last year because  $\frac{19}{17} < 1$ .
- D** Ansel earned more this year than last year because  $\frac{19}{17} > 1$ .

**24** An architect was designing a rectangular room with a length of 16 feet, a width of 14 feet, and a height of 10 feet.

**Part A**

What is the volume of the room?

**Show your work.**

**Answer** \_\_\_\_\_ cubic feet

**Part B**

The architect changed his design and added 2 feet to the length and width of the room. How much greater is the volume of the room in the architect's new design?

**Show your work.**

**Answer** \_\_\_\_\_ cubic feet

**25** Which number is three hundred thirty and seventy-six thousandths?

- A 330.0076
- B 330.076
- C 330.76
- D 337.6

**26** Gary wanted to read a 307-page book in 10 nights. On the first night, he read 30 pages. Gary says he will need to read 31 pages a night on most of the remaining nights if he wants to finish the book on time.

Which *best* describes whether Gary is correct?

- A He is correct because  $277 \div 9$  is between 30 and 31.
- B He is not correct because  $297 \div 9 = 33$ .
- C He is correct because  $307 \div 10$  is between 30 and 31.
- D He is not correct because  $277 \div 10$  is between 27 and 28.

**27** In Vincent's garden,  $\frac{1}{6}$  of the flowers are daisies, and  $\frac{1}{8}$  of the flowers are snapdragons.

Which statements are *true*? Mark all that apply.

- A If he has 10 daisies, then he has 16 flowers in all.
- B If he has 8 daisies, then he has 48 flowers in all.
- C If he has 14 snapdragons then he has 84 flowers in all.
- D If he has 12 snapdragons, then he has 96 flowers in all.

**Go On**

**28**

Consider the expression shown.

$$(5 \times 100) + (8 \times 10) + (9 \times 1) + \left(2 \times \frac{1}{10}\right) + \left(6 \times \frac{1}{100}\right)$$

**Part A**

What is the value of this expression? Fill in the blank to complete the statement.

**Answer**  $(5 \times 100) + (8 \times 10) + (9 \times 1) + \left(2 \times \frac{1}{10}\right) + \left(6 \times \frac{1}{100}\right) = \underline{\hspace{2cm}}$

**Part B**

What is one-tenth of the value of this expression? Fill in the blanks to complete each step.

$$\frac{1}{10} \times \left[ (5 \times 100) + (8 \times 10) + (9 \times 1) + \left(2 \times \frac{1}{10}\right) + \left(6 \times \frac{1}{100}\right) \right] =$$

$$5 \times \underline{\hspace{1cm}} + 8 \times \underline{\hspace{1cm}} + 9 \times \underline{\hspace{1cm}} + 2 \times \underline{\hspace{1cm}} + 6 \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$

**Part C**

How can you use place value to divide a decimal number by 10? Explain your reasoning.

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**Part D**

Demonstrate how to use place value to divide 142.78 by 10.

**Show your work.**

**Answer**  $142.78 \div 10 = \underline{\hspace{2cm}}$

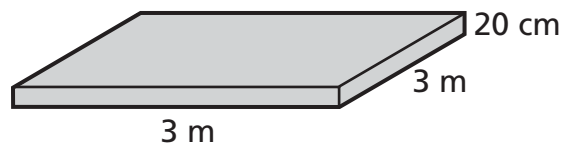
**29**

All parallelograms have two pairs of opposite sides that are parallel and all squares are parallelograms. Using this relationship, which property can you determine is true?

- A** All squares have two pairs of opposite sides that are parallel.
- B** All squares have two pairs of opposite sides that are perpendicular.
- C** All squares have four right angles.
- D** All squares have four sides that are the same length.

**30**

Owen has 2 cubic meters of sand. Does he have enough to fill a sandbox with the dimensions shown? (1 meter = 100 centimeters)



**Show your work.**

**Answer** \_\_\_\_\_

**31**

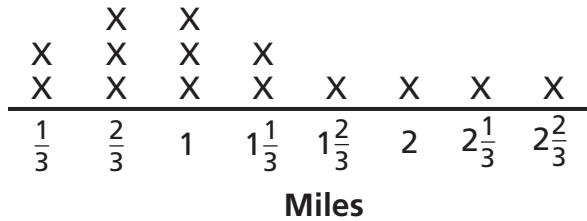
Which is a true statement about the number 19,842?

- A** The value of the 9 is 10 times the value of the 8.
- B** The value of the 4 is 2 times the value of the 8.
- C** The value of the 8 is 10 times the value of the 4.
- D** The value of the 8 is 20 times the value of the 4.

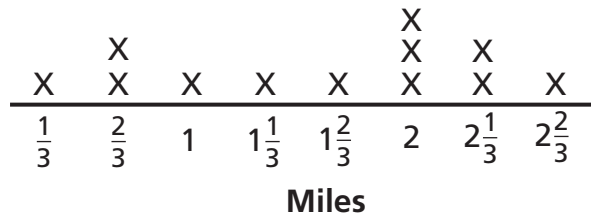
**Go On**

Tayshaun and Jackie have competing dog-walking services. These line plots show a typical week for each of their services.

Tayshaun's Dog-Walking Service



Jackie's Dog-Walking Service



### Part A

Who walks more dogs in a week? How many more dogs? Fill in the blanks to complete the sentence.

**Answer** \_\_\_\_\_ walks \_\_\_\_\_ more dogs in a week than \_\_\_\_\_.

### Part B

Whose service gives more dogs longer walks? Fill in the blanks to complete the sentence.

**Answer** Tayshaun walks \_\_\_\_\_ dogs 2 miles or more and Jackie walks \_\_\_\_\_ dogs 2 miles or more. \_\_\_\_\_ gives more dogs long walks.

### Part C

Complete the following statements.

**Answer** The total number of miles walked by all the dogs in Tayshaun's dog-walking service during a typical week is \_\_\_\_\_.

In Jackie's service, the dogs walk a total of \_\_\_\_\_ miles in a typical week.



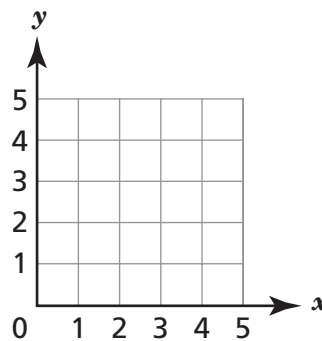
**33** Which expression is equivalent to  $\frac{4}{5} \times 120$ ?

- A**  $4 \div 5 \div 120$
- B**  $4 \times 120 \div 5$
- C**  $4 + 120 \div 5$
- D**  $4 \times 5 - 120$
- E**  $5 \times 120 + 4$
- F**  $5 \times 4 + 120$
- G**  $5 \times 120 \times 4$

**34** Lines drawn to connect opposite corners of any rectangle are the same length.

**Part A**

Draw a rectangle with corners at  $(0, 0)$ ,  $(0, 4)$ ,  $(3, 4)$ , and  $(3, 0)$  to show this.



**Part B**

Think about the relationship between squares and rectangles. Does this statement tell you anything about the lines connecting opposite corners of any square? Explain your answer.

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**Go On**

**35** Which statement best describes the product  $\frac{4}{5} \times 10$ ?

- A**  $\frac{4}{5} \times 10$  must be greater than 10 because  $10 > 1$ .
- B**  $\frac{4}{5} \times 10$  must be greater than 10 because  $\frac{4}{5} < 1$ .
- C**  $\frac{4}{5} \times 10$  must be less than 10 because  $\frac{4}{5} < 1$ .
- D**  $\frac{4}{5} \times 10$  must be less than 10 because  $10 > 1$ .

**36**

Mr. Wellington asked his students to compare the products  $42.6 \times 10^2$  and  $4.26 \times 10^5$ .

**Part A**

Estimate which product is greater. Explain how you made your estimate.

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**Part B**

Rewrite  $4.26 \times 10^5$  as a product of 42.6 and a power of 10. Fill in the blank to complete the statement.

**Answer**  $4.26 \times 10^5 = 42.6 \times \underline{\hspace{2cm}}$

**Part C**

Explain how to use place value to compute the product of a number and a power of 10.

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**Part D**

Compute the products.

**Answer**  $42.6 \times 10^2 = \underline{\hspace{2cm}}$

$4.26 \times 10^5 = \underline{\hspace{2cm}}$

**Go On**

**37** A rectangular bathroom tile is  $2\frac{1}{3}$  times as wide as it is tall. If the tile is  $\frac{3}{4}$  centimeters tall, how wide is it?

**A**  $3\frac{1}{9}$  cm

**B**  $3\frac{1}{12}$  cm

**C**  $2\frac{4}{7}$  cm

**D**  $1\frac{3}{4}$  cm

**38** Alberto has 250 cubes with edge lengths of 1 centimeter. Which measurements represent the volume of a rectangular prism that Alberto could fit all of his cubes into? Mark all that apply.

**A** 256 cubic centimeters

**B** 248 cubic centimeters

**C** 236 cubic centimeters

**D** 260 cubic centimeters

**39** Evaluate.

$$3\frac{1}{6} + 8\frac{2}{9} - 1\frac{1}{2}$$

**A**  $9\frac{8}{9}$

**B**  $9\frac{7}{10}$

**C**  $9\frac{2}{3}$

**D**  $9\frac{19}{30}$

**40**

Andre and Molly have a tree fort that consists of two rectangular rooms. The upper level has a length of 5 feet, a width of 3 feet, and a height of 6 feet. The lower level has a length of 7 feet, a width of 4 feet, and a height of 8 feet.

**Part A**

Which level has a greater volume? How much greater? Fill in the blanks to complete the statement.

**Answer** The \_\_\_\_\_ level has a greater volume by \_\_\_\_\_ cubic feet.

**Part B**

Andre says that the total volume of the tree fort is 314 cubic feet, while Molly says that the total volume is 20,160 cubic feet. Is either Andre or Molly right? Explain your reasoning.

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**STOP**

Ready® Assessments, Mathematics, Level 5  
Answer Form

Name \_\_\_\_\_

Teacher \_\_\_\_\_ Grade \_\_\_\_\_

School \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

Assessment 1

1A. (A) (B) (C) (D)

1B. (A) (B) (C) (D)

2A. (A) (B) (C) (D)

2B. (A) (B) (C) (D)

3. (A) (B) (C) (D)

4. See page 4.

5. See page 5.

6. (A) (B) (C) (D) (E)

7A. (A) (B) (C) (D)

7B. (A) (B) (C) (D)

8. See page 7.

9A. (A) (B) (C) (D)

9B. (A) (B) (C) (D)

10. (A) (B) (C) (D)

11A. (A) (B) (C) (D)

11B. (A) (B) (C) (D)

12. See page 11.

13. (A) (B) (C) (D)

14. (A) (B) (C) (D)

15A. (A) (B) (C) (D)

15B. (A) (B) (C) (D)

16. See page 14.

17. (A) (B) (C) (D)

18. (A) (B) (C) (D)

19A. (A) (B) (C) (D)

19B. (A) (B) (C) (D)

20. See page 17.

21. See page 18.

22. (A) (B) (C) (D)

23. (A) (B) (C) (D)

24. See page 20.

25. (A) (B) (C) (D)

26. (A) (B) (C) (D)

27. (A) (B) (C) (D)

28. See page 22.

29. (A) (B) (C) (D)

30. See page 23.

31. (A) (B) (C) (D)

32. See page 24.

33. (A) (B) (C) (D) (E) (F) (G)

34. See page 25.

35. (A) (B) (C) (D)

36. See page 27.

37. (A) (B) (C) (D)

38. (A) (B) (C) (D)

39. (A) (B) (C) (D)

40. See page 29.

TEACHER USE ONLY

4. (0) (1) (2) (3) (4)

5. (0) (1)

8. (0) (1) (2) (3)

12. (0) (1) (2) (3)

16. (0) (1) (2) (3)

20. (0) (1) (2) (3)

21. (0) (1)

24. (0) (1) (2) (3)

28. (0) (1) (2) (3) (4)

30. (0) (1) (2) (3)

32. (0) (1) (2) (3) (4) (5) (6)

34. (0) (1) (2) (3)

36. (0) (1) (2) (3) (4)

40. (0) (1) (2) (3)

Cut along the dotted line.