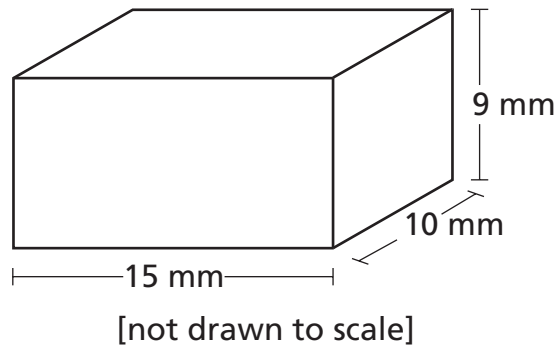


Unit 1

Answer questions 1–18. Answer questions outlined in green in your test book. Answer all other questions on your Answer Form.

- 1** A rectangular prism is shown below.

**Part A**

Which **three** expressions can be used to find the greatest number of 1-millimeter unit cubes that could be packed into the prism?

- A** 150×9
- B** 135×10
- C** 100×19
- D** 90×15
- E** 19×15

Part B

What is the volume of the prism?

- A** 225 mm^3
- B** 285 mm^3
- C** $1,350 \text{ mm}^3$
- D** $1,500 \text{ mm}^3$

2

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.

Describe the relationship between the corresponding terms of the two patterns. Choose from the phrases below to complete the statement.

2 times 3 times 4 times 4 more than 8 more than 12 more than

Each term of Pattern B is _____ the corresponding term of Pattern A.

3

Which expression is equivalent to the expression "24 divided by the difference of 8 and 2"?

A $24 \div 8 - 2$

B $24 \div (8 - 2)$

C $24 \div 2 - 8$

D $24 \div (2 - 8)$

Go On

Part A

Matt drew a quadrilateral with both pairs of opposite sides parallel. Each pair of opposite sides are also equal in length. Which **two** statements are true?

- A** It could be a rectangle.
- B** It must be a square.
- C** It could be a triangle.
- D** It must be a parallelogram.
- E** It must be a rhombus.

Part B

Rebecca drew a quadrilateral with at least one pair of opposite sides that are parallel. Which **three** statements are true?

- A** It must be a rectangle.
- B** It must be a parallelogram.
- C** It could be a square.
- D** It could be a rhombus.
- E** It must be a trapezoid.

- 5** What is the product of 378×56 ? Record your answer and fill in the bubbles on your answer form. Be sure to use the correct place value.

- 6** The length of a plot of land is $\frac{1}{2}$ mile. The plot is divided into four equal lengths. What is the length of each part?

Show your work.

Answer _____ mile

7

Part A

What is the product $387 \times 4,563$?

- A** 1,724,814
- B** 1,727,181
- C** 1,755,432
- D** 1,765,881

Part B

What is the product $6,048 \times 519$?

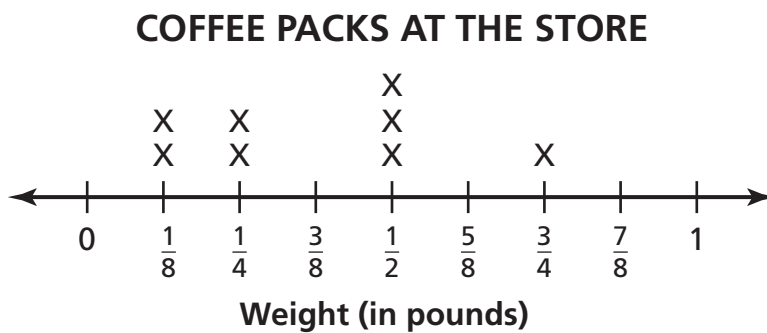
- A** 3,078,432
- B** 3,138,912
- C** 3,157,596
- D** 3,325,752

Go On

8 How many zeros will be in the simplified expression 4×10^x if x is any whole number?

- A** x
- B** $x - 1$
- C** $x + 1$
- D** $4x$

9 A store sells packs of coffee that weigh fractions of a pound. The line plot below shows the numbers of packs of different weights that are in stock.



Part A

Determine the total weight of the coffee the store has in stock. Choose from the values below to complete the statement.

- $\frac{13}{8}$ $\frac{9}{4}$ 3 4 8

The store has _____ pounds of coffee in stock.

Part B

Determine whether each of the following statements about the coffee packs is true. Select True or False for each statement.

Statement	True	False
a. The total weight of the four heaviest packs is $2\frac{1}{2}$ pounds.	<input type="radio"/>	<input type="radio"/>
b. The heaviest pack is $\frac{5}{8}$ pound heavier than the lightest pack.	<input type="radio"/>	<input type="radio"/>
c. There are three packs that have a combined weight of $\frac{3}{8}$ pound.	<input type="radio"/>	<input type="radio"/>
d. The total weight of the four lightest packs is equal to the weight of the heaviest pack.	<input type="radio"/>	<input type="radio"/>
e. There are two packs that have a combined total weight of $\frac{7}{8}$ pound.	<input type="radio"/>	<input type="radio"/>

Go On

- 10** A factory receives an order to ship at least 45,000 parts.

Part A

Which shipments contain enough parts for this order? Select Yes or No for each shipment.

Shipment	Yes	No
a. 315 boxes of 144 parts	<input type="radio"/>	<input type="radio"/>
b. 270 boxes of 164 parts	<input type="radio"/>	<input type="radio"/>
c. 215 boxes of 212 parts	<input type="radio"/>	<input type="radio"/>
d. 190 boxes of 240 parts	<input type="radio"/>	<input type="radio"/>
e. 240 boxes of 170 parts	<input type="radio"/>	<input type="radio"/>

Part B

The factory ships 225 boxes to fill the order. The total price of the parts in each box is \$3,990. Determine the total value of the shipment. Choose from the values below to complete the statement.

\$875,250 \$877,500 \$879,525 \$897,750

The total value of the shipment is _____.

- 11** A set of coordinates follows these two rules.

x-coordinate: Start with 4 and add 4 to get the next term.

y-coordinate: Start with 4 and multiply by 2 to get the next term.

Use these rules to fill in the blanks to complete the ordered pairs.

(4, 4), (____, ____), (____, ____)

12 Which **two** statements are true?

A $\frac{2}{7} \times \frac{3}{8} < \frac{3}{8}$ because $\frac{2}{7} < 1$

B $\frac{2}{7} \times \frac{3}{8} > \frac{3}{8}$ because $\frac{2}{7} > 1$

C $\frac{2}{7} \times \frac{3}{8} < \frac{2}{7}$ because $\frac{3}{8} > 1$

D $\frac{2}{7} \times \frac{3}{8} < \frac{2}{7}$ because $\frac{3}{8} < 1$

E $\frac{2}{7} \times \frac{3}{8} > \frac{2}{7}$ because $\frac{3}{8} < 1$

13 Carlo has a cube that is 1 unit long, 1 unit wide, and 1 unit high. What is the volume of Carlo's cube?

A 1 unit

B 3 units

C 1 cubic unit

D 3 cubic units

14 Which **three** statements about a rhombus are true?

A It could not be a rectangle.

B It could be a trapezoid.

C It must be a square.

D It must be a parallelogram.

E It could not be a pentagon.

Go On

15

A scientist has 21.06 kilograms of a substance. He evenly divides the substance into 9 beakers. How many kilograms of the substance is in each beaker? Record your answer and fill in the bubbles on your answer form. Be sure to use the correct place value.

16

A gasoline truck is carrying 189.271 liters of gasoline. What is this number in expanded form?

A $1 + 8 + 9 + \left(\frac{2}{10}\right) + \left(\frac{7}{100}\right) + \left(\frac{1}{1,000}\right)$

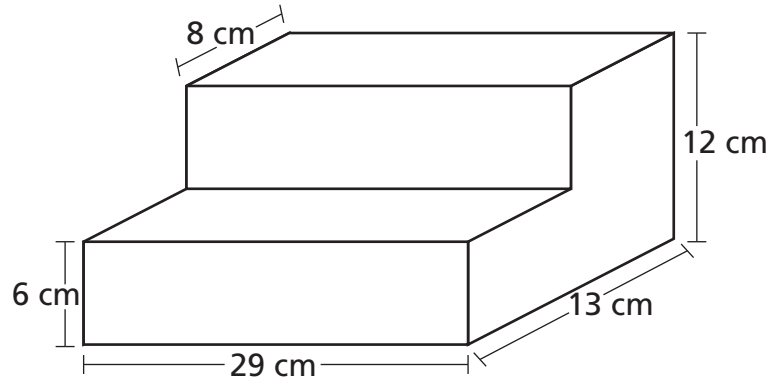
B $(1 \times 100) + (8 \times 10) + (9 \times 1) + \left(2 \times \frac{1}{10}\right) + \left(7 \times \frac{1}{100}\right) + \left(1 \times \frac{1}{1,000}\right)$

C $(1 \times 100) + (8 \times 10) + (9 \times 1) + \left(2 \times \frac{1}{100}\right) + \left(7 \times \frac{1}{1,000}\right) + \left(1 \times \frac{1}{10,000}\right)$

D $(1 \times 10,000) + (8 \times 1,000) + (9 \times 100) + (2 \times 10) + (7 \times 1) + \left(1 \times \frac{1}{10}\right)$

17

The figure below is composed of two rectangular prisms.



[not drawn to scale]

Which **two** expressions can be simplified to find the volume of the figure?

- A $(6 \text{ cm} \times 29 \text{ cm} \times 5 \text{ cm}) + (6 \text{ cm} \times 29 \text{ cm} \times 8 \text{ cm})$
- B $(6 \text{ cm} \times 29 \text{ cm} \times 5 \text{ cm}) + (12 \text{ cm} \times 29 \text{ cm} \times 13 \text{ cm})$
- C $(6 \text{ cm} \times 29 \text{ cm} \times 5 \text{ cm}) + (12 \text{ cm} \times 29 \text{ cm} \times 8 \text{ cm})$
- D $(6 \text{ cm} \times 29 \text{ cm} \times 13 \text{ cm}) + (12 \text{ cm} \times 29 \text{ cm} \times 8 \text{ cm})$
- E $(6 \text{ cm} \times 29 \text{ cm} \times 13 \text{ cm}) + (6 \text{ cm} \times 29 \text{ cm} \times 8 \text{ cm})$

18

Which expression has a value equivalent to the product $\frac{7}{11} \times 1$?

- A $\frac{7 + 3}{11 + 3}$
- B $\frac{7 \div 7}{11 \div 11}$
- C $\frac{7 \times 3}{11 \times 3}$
- D $\frac{7 - 3}{11 - 3}$

STOP

Unit 2

Answer questions 19–36. Answer questions outlined in green in your test book. Answer all other questions on your Answer Form.

19 Which situation can be modeled by the expression $4 \div \frac{1}{3}$?

- A** Beni separates 4 quarts of paint into 3 equal jars.
- B** Beni puts $\frac{1}{3}$ quart of paint in each of 4 jars.
- C** Beni has 4 quarts of paint and puts $\frac{1}{3}$ quart into a jar.
- D** Beni fills as many $\frac{1}{3}$ -quart jars as he can with 4 quarts of paint.

20

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** 66

21 What is $1\frac{1}{2}$ subtracted from the sum of $4\frac{2}{3}$ and $5\frac{2}{5}$?

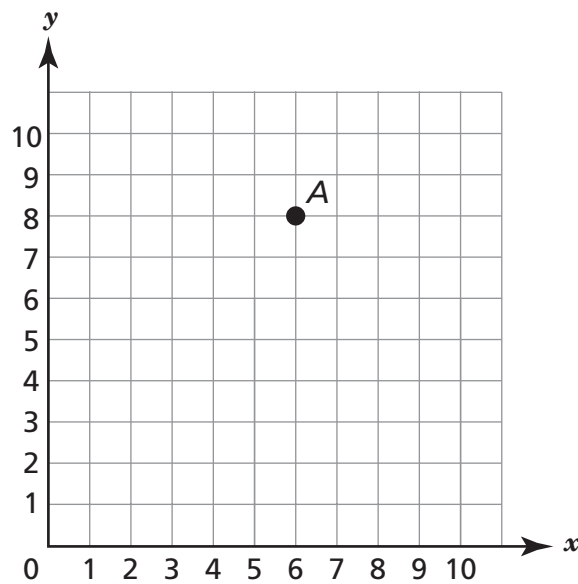
A $7\frac{7}{30}$

B $8\frac{4}{15}$

C $8\frac{17}{30}$

D $8\frac{11}{15}$

22 Point A is shown on the coordinate plane below.



Describe how to get to Point A from the origin. Choose from the numbers and words shown below to complete the statement.

6 8 right left up down

First, go _____ for _____ units, then go _____ for _____ units.

Go On

23 Which correctly compares the two different values of the digit 8 in the number 428.87?

A $0.8 = 8 \div \frac{1}{10}$

B $0.8 = 8 \times \frac{1}{10}$

C $8 = 0.8 \times \frac{1}{10}$

D $8 = \frac{1}{10} \div 0.8$

24 Makoto's lacrosse practice lasts $1\frac{3}{4}$ hours. This week he attended the entire practice on Monday and Wednesday, but he had to leave halfway through practice on Friday. How many hours did Makoto spend at lacrosse practice this week?

A $\frac{1}{8}$

B $\frac{3}{4}$

C $4\frac{1}{4}$

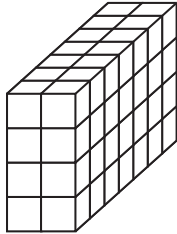
D $4\frac{3}{8}$

Ashwin and Dora each had a large cube that was made of smaller 1-centimeter cubes. They each used some or all of their smaller cubes to make different rectangular prisms.

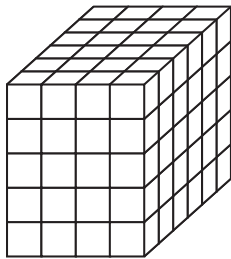
Part A

Ashwin's large cube had an edge length of 4 centimeters. Which **two** prisms will Ashwin be able to make with his smaller cubes?

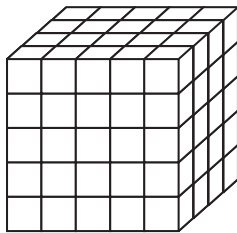
A



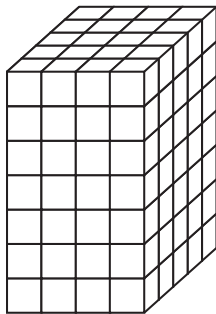
B



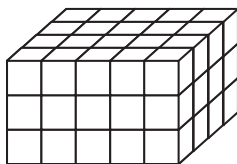
C



D



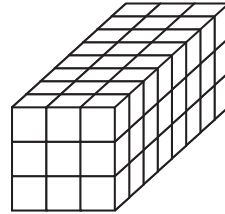
E



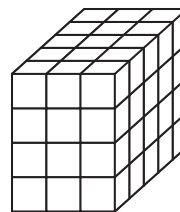
Part B

Dora's large cube had an edge length of 5 centimeters. Which **three** prisms will Dora be able to make with her smaller cubes?

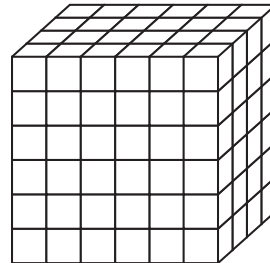
A



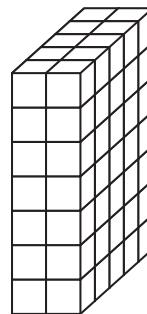
B



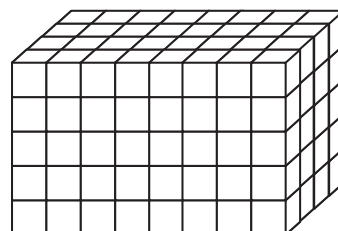
C



D

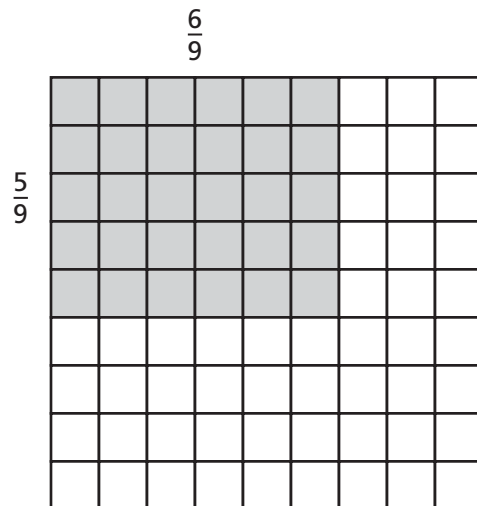


E



Go On

Examine the figure below.



Which equation does the model represent?

A $\frac{6}{9} \times \frac{5}{9} = \frac{10}{27}$

B $\frac{6}{9} \times \frac{5}{9} = \frac{11}{9}$

C $\frac{6}{9} \times \frac{5}{9} = \frac{30}{9}$

D $\frac{6}{9} \times \frac{5}{9} = \frac{30}{81}$

27

A town manager calculates that residents use a total of 5,742 gallons of water each hour of every day. What is the total amount of water the residents use in 2 weeks?

Show your work.

Answer _____ gallons

28

Gelisa caught one fish with a mass of 1.78 kilograms, and a second fish with a mass of 1.46 kilograms. What is the total mass of the two fish, rounded to the nearest tenth of a kilogram? Record your answer and fill in the bubbles on your answer form. Be sure to use the correct place value.

Go On

29 A baker bought 7,500 grams of flour. How many kilograms of flour did she buy?

Show your work.

Answer _____ kilograms

30 The maximum weight that can be shipped in a certain container is 1 pound. Lynn has an item that weighs $\frac{7}{16}$ pound and another item that weighs $\frac{3}{8}$ pound. Which estimate best explains whether Lynn can ship both items in the container?

- A** Lynn can ship both items because $\frac{7}{16}$ is less than $\frac{1}{2}$ and $\frac{3}{8}$ is greater than $\frac{1}{2}$, so their sum will be 1.
- B** Lynn can ship both items because $\frac{7}{16}$ and $\frac{3}{8}$ are both less than $\frac{1}{2}$, so their sum is less than 1.
- C** Lynn cannot ship both items because $\frac{7}{16}$ and $\frac{3}{8}$ are both greater than $\frac{1}{2}$, so their sum is greater than 1.
- D** Lynn cannot ship both items because $\frac{7}{16}$ is less than $\frac{1}{2}$ and $\frac{3}{8}$ is greater than $\frac{1}{2}$, so their sum will be greater than 1.

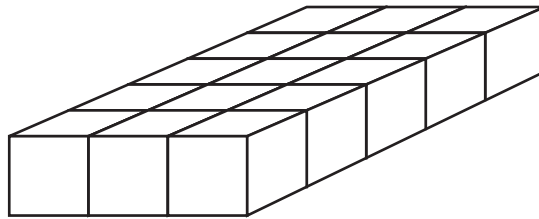
31

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 42×10^{12}
- D 20×10^{10}

32

The figure below is made up of 1-centimeter cubes.

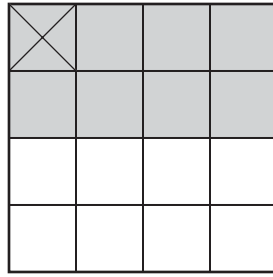


Fill in the blank to complete the statement.

The volume of the figure is _____ cm^3 .

Go On

- 33** Yahir has $\frac{1}{2}$ gallon of milk in a container. He pours $\frac{1}{16}$ gallon into a mixing bowl.



What fraction of a gallon does Yahir have left in the container?

- A** $\frac{7}{8}$
- B** $\frac{7}{16}$
- C** $\frac{1}{14}$
- D** $\frac{1}{16}$
- 34** A rectangular tile is $2\frac{1}{3}$ times as wide as it is tall. If the tile is $\frac{3}{4}$ inch tall, how wide is it?
- A** $1\frac{3}{4}$ in.
- B** $2\frac{4}{7}$ in.
- C** $3\frac{1}{12}$ in.
- D** $3\frac{1}{9}$ in.

Part A

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

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

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

36

The manager of a sporting goods store ordered 256 packages of football cards. There are 24 cards in each package. What is the total number of football cards the manager ordered?

Fill in the blank to complete the statement.

The manager ordered _____ football cards.

STOP

Name _____

Teacher _____ Grade _____

End-of-Year Assessment 1

Unit 1

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

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

2. See page 21.

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

4A. (A) (B) (C) (D) (E)

4B. (A) (B) (C) (D) (E)

5.

•	•	•	•	•	•
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

6. See page 23.

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

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

8. (A) (B) (C) (D)

9. See page 24.

10. See page 26.

11. See page 26.

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

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

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

15.

•	•	•	•	•	•
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

16. (A) (B) (C) (D)

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

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

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2. (0) (1)

6. (0) (1)

9. (0) (1) (2)

10. (0) (1) (2)

11. (0) (1)

Cut along the dotted line.

Name _____

Teacher _____ Grade _____

End-of-Year Assessment 1 (continued)

Unit 2

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

20A. (A) (B) (C) (D)

20B. (A) (B) (C) (D)

21. (A) (B) (C) (D)

22. See page 31.

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

24. (A) (B) (C) (D)

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

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

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

27. See page 35.

28.

⊙	⊙	⊙	⊙	⊙	⊙
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

29. See page 36.

30. (A) (B) (C) (D)

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

32. See page 37.

33. (A) (B) (C) (D)

34. (A) (B) (C) (D)

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

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

36. See page 39.

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22. (0) (1)

27. (0) (1)

29. (0) (1)

32. (0) (1)

36. (0) (1)