

Spring 2025

GRADE 5
MATHEMATICS

PTM0524_3:4

1. This question has two parts.

Part A

The volume of a rectangular prism is 60 cubic units. The length of the prism is 5 units, and the width of the prism is 4 units. What is the height, in units, of the rectangular prism?

Enter your answer in the space.

Part B

The volume of a rectangular prism is 80 cubic units. The length of the prism is 5 units, and the width of the prism is 4 units. What is the height, in units, of the rectangular prism?

Enter your answer in the space.

PTM0528_:

- 2.** This question has two parts.

A box is in the shape of a rectangular prism. The box has a length of 5 units, a width of 3 units, and a height of 2 units.

Part A

- How many unit cubes are needed to completely fill the box without any gaps or overlaps?
- Explain how you determined your answer.

Enter your answer and your explanation in the space.

Part B

A second box shaped like a rectangular prism has a volume of 10 cubic units.

- Explain how to determine how many of the smaller boxes can fit inside the larger box without any gaps or overlaps.

Enter your explanation in the space.

PTM0523_2

- 3.** Pattern A starts with 5 and adds 3 each time. Pattern B starts with 5 and multiplies by 2 each time. Which list of ordered pairs represents the outputs of Pattern A and Pattern B?

- A.** (5, 5), (8, 7), (11, 9), (14, 11), (17, 13)
- B.** (5, 5), (8, 10), (11, 20), (14, 40), (17, 80)
- C.** (5, 5), (8, 15), (11, 30), (14, 60), (17, 125)
- D.** (5, 5), (15, 10), (45, 20), (165, 40), (495, 80)

PTM0519

4. Ichiro ordered 336 ounces of udon noodles. Each package contains 14 ounces of udon noodles. Each box contains 12 packages of udon noodles. Ichiro says he ordered 24 boxes of udon noodles. Ichiro made an error when determining the number of boxes of udon noodles he ordered.
- What is Ichiro's error?
 - How many packages of udon noodles did Ichiro order?
 - How many boxes of udon noodles did Ichiro order?
 - Explain how to use the relationship between multiplication and division to determine the number of packages of udon noodles Ichiro ordered and the number of boxes of udon noodles Ichiro ordered.

Enter your answer in the space provided. Show all your work to support your answer.

PTM0517_3

5. Which expression represents the statement?

Subtract 9 from 17, and then multiply by 6

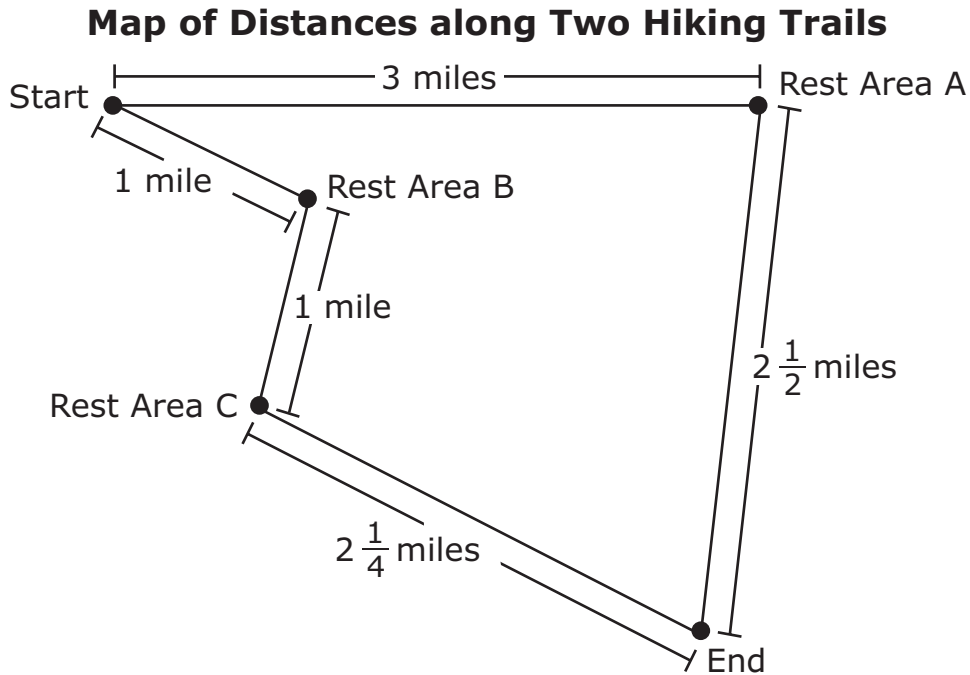
- A.** $9 - 17 \times 6$
- B.** $17 - 9 \times 6$
- C.** $6 \times (17 - 9)$
- D.** $6 \times 17 - 9$

M18_B563_2

6. Two hiking trails have the same start point and end point.

- Trail 1 passes through Rest Area A.
- Trail 2 passes through Rest Area B and Rest Area C.

The map shows the distances along the two trails in miles.



How much shorter is Trail 2 than Trail 1?

- A. $\frac{3}{4}$ mile
- B. $1\frac{1}{4}$ miles
- C. $1\frac{3}{4}$ miles
- D. $2\frac{1}{4}$ miles

Mathematics

PTM0507_2

7. Which expression shows 285.074 in expanded form?

- A. $200,000 + 80,000 + 5,000 + 70 + 4$
- B. $200 + 80 + 5 + 0.07 + 0.004$
- C. $200,000 + 80,000 + 5,000 + 700 + 40$
- D. $200 + 80 + 5 + 0.7 + 0.04$

PTM0501_P_1

8. Which table correctly converts each measure in centimeters to meters?

A.

Centimeters	Meters
0.3	0.003
3	0.03
30	0.3
300	3

B.

Centimeters	Meters
0.3	0.03
3	0.3
30	3
300	30

C.

Centimeters	Meters
0.3	3
3	30
30	300
300	3,000

D.

Centimeters	Meters
0.3	30
3	300
30	3,000
300	30,000

PTM0526_7000:3

9. This question has two parts.

Part A

A student writes the expression shown.

$$0.70 \times 10^4$$

Calculate the product of the expression written by the student.

Enter your answer in the space.

Part B

Based on the expression the student wrote, how many zeros are there in the product?

Enter your answer in the space.

PTM0518

10. Kathy read $\frac{7}{8}$ of a book. Ashton read $\frac{2}{5}$ of the same book.

- Write an equation to determine how much more of the book Kathy read than Ashton, b .
- How much more of the book did Kathy read than Ashton?
- How can you use benchmark fractions to check the reasonableness of your answer?

Enter your answer in the space provided. Show all your work to support your answer.

M18_B858_6

- 11.** Evaluate the expression.

$$21 \div (3 + 4) \times (4 - 2)$$

Enter your answer in the box.

PTM0511_1

- 12.** There are 5 cups of bubble tea to share evenly among 7 people.

Which equation describes how many cups of bubble tea each person will receive?

A. $5 \div 7 = \frac{5}{7}$

B. $5 \div 7 = \frac{7}{5}$

C. $7 \div 5 = \frac{5}{7}$

D. $7 \div 5 = \frac{7}{5}$

PTM0510_0.112

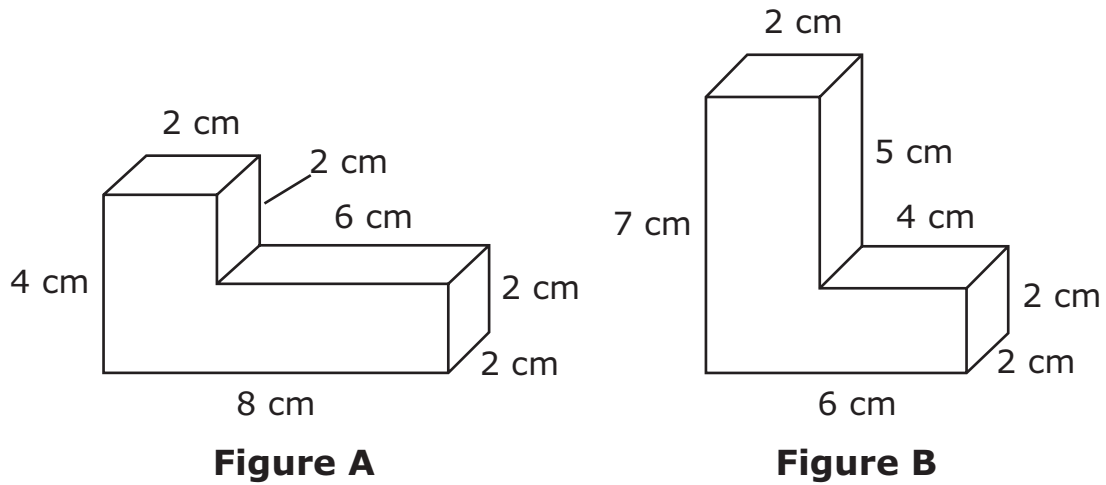
- 13.** What is 0.56×0.2 ?

Enter your answer in the space.

PTM0525_40:44

14. This question has two parts.

Two figures composed of rectangular prisms are shown.



Part A

What is the volume of Figure A, in cubic centimeters?

Enter your answer in the space.

Part B

What is the volume of Figure B, in cubic centimeters?

Enter your answer in the space.

PTM0527_3:4

15. This question has two parts.

Part A

A landscaper has $5\frac{1}{4}$ acres to mow. He mowed $2\frac{3}{10}$ acres before lunch. How many acres does the landscaper have left to mow after lunch?

- A. $\frac{105}{20}$ acres
- B. $\frac{46}{20}$ acres
- C. $\frac{59}{20}$ acres
- D. $\frac{151}{20}$ acres

Part B

The landscaper also placed $90\frac{1}{2}$ cubic feet of mulch in one flower bed and $121\frac{3}{4}$ cubic feet of mulch in another flower bed. How many cubic feet of mulch did the landscaper place in both flower beds?

- A. $\frac{181}{2}$ cubic feet
- B. $\frac{487}{4}$ cubic feet
- C. $\frac{125}{4}$ cubic feet
- D. $\frac{849}{4}$ cubic feet

PTM0502_7.5:4

16. This question has two parts.

Part A

How many meters are equivalent to 750 centimeters?

Enter your answer in the space.

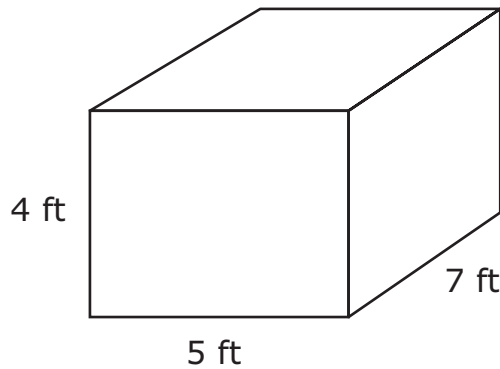
Part B

How many miles are equivalent to 7,040 yards?

Enter your answer in the space.

PTM0505_140

17. The shape is a rectangular prism.



What is the volume, in cubic feet, of the rectangular prism?

Enter your answer in the space.

Mathematics

M18_B708_3

- 18.** A biologist captured a lizard that is 86 millimeters in length. What is the length of the lizard in centimeters?
- A.** 0.086 centimeter
 - B.** 0.86 centimeter
 - C.** 8.6 centimeters
 - D.** 860 centimeters

PTM0512_4

- 19.** Which expression is equal to $\frac{7}{8}$?
- A.** $7 + 8$
 - B.** $7 - 8$
 - C.** 7×8
 - D.** $7 \div 8$

PTM0521

- 20.** On a farm, $\frac{3}{4}$ of the animals are cattle. Of the cattle, $\frac{2}{3}$ are female, and $\frac{1}{3}$ are male.
- What does the expression $\frac{3}{4} \times \frac{2}{3}$ represent?
 - What is the product of the expression?
 - How can you use an area model to check your work?

Enter your answer in the space provided. Show all your work to support your answer.

PTM0522_:

21. This question has two parts.

Part A

Amir is taking inventory of the number of dashikis, or loose-fitting shirts with African patterns, in each of three warehouses. Warehouse A has 345 dashikis. Warehouse B has 4 times as many dashikis as Warehouse A. Warehouse C has 440 fewer dashikis than Warehouse B.

- What is the total number of dashikis at all three warehouses?
- Explain your process for finding the total number of dashikis at all three warehouses.

Enter your answer in the space provided. Show all your work to support your answer.

Part B

Amir is also taking inventory of the number of boubous, or African robes made of one large rectangle of fabric with an opening in the center of the neck, in each of three warehouses. Warehouse A has 515 boubous.

Warehouse B has $\frac{3}{5}$ times as many boubous as Warehouse A. Warehouse C has 256 more boubous than Warehouse B.

- What is the total number of boubous at all three warehouses?
- Explain your process for finding the total number of boubous at all three warehouses.

Enter your answer in the space provided. Show all your work to support your answer.

M18_A650_3

22. The first term in the pattern below is 40.

40, 24, 16, 12, 10, 9, ...

Which rule could have been used to produce the other terms in this pattern?

- A. Subtract 16 from the previous term to get the next term
- B. Multiply the previous term by 2, and then subtract 16 from the result to get the next term
- C. Divide the previous term by 2, and then add 4 to the result to get the next term
- D. Divide the previous term by 4, and then add 4 to the result to get the next term

PTM0513_4

23. The 3 rectangles each have $\frac{3}{4}$ of their area shaded.



What is $3 \times \frac{3}{4}$?

- A. $\frac{3}{12}$
- B. $\frac{9}{12}$
- C. $\frac{3}{4}$
- D. $\frac{9}{4}$



Please let your teacher know that you have completed your test.



