



Standard	Items
MCC6.RP.3d	8, 12
MCC6.G.1	1–8, 12
MCC6.G.2	11
MCC6.G.4	3, 9–10, 13

## TEST PREP DOCTOR

### Selected Response: Item 2

- Students who answered **F** may have added 30 and 24.
- Students who answered **G** may have added  $(30 + 30 + 30 + 24)$ .
- Students who answered **J** may not have divided by 2.

### Selected Response: Item 7

- Students who answered **A** may have multiplied 18 and 8.
- Students who answered **C** may have multiplied 18 and 15.
- Students who answered **D** may have multiplied 15 by the sum of the two bases, but forgot to divide by 2.

### Selected Response: Item 10

- Students who answered **F** may have found the area of only the top and bottom:  $(12)(8)(2)$ .
- Students who answered **G** may have found the area of only 4 sides:  $(12)(8)(2) + (8)(5)(2)$ .
- Students who answered **J** may have found the volume of the figure, instead of the surface area.

### Constructed Response: Item 11

- Students who answered **45** may have divided the volume by 18 but not by 9.
- Students who answered **90** may have divided the volume by 9 but not by 18.

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

**SELECTED RESPONSE**

1. New tiles are being laid in the school hallway. The tiles measure 1 foot by 1 foot. The hallway is 75 feet long and 9 feet wide. How many tiles will be needed to cover the floor of the hallway?

- A. 84 tiles
- B. 168 tiles
- C. 675 tiles
- D. 6,075 tiles

2. A triangular street sign has a base of 30 inches and a height of 24 inches.



What is the area of the street sign?

- F. 54 square inches
- G. 114 square inches
- H. 360 square inches
- J. 720 square inches

3. Martha is putting a wallpaper border along the tops of the four walls in her bedroom. The room is a rectangle that measures 12 feet by 10 feet. One package of wallpaper border is 9 feet long. How many packages does Martha need?

- A. 2 packages
- B. 4 packages
- C. 5 packages
- D. 14 packages

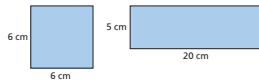
4. A regular polygon has a perimeter of 48 feet. Each side of the polygon measures 6 feet. What is the name of this polygon?

- F. triangle
- G. square
- H. hexagon
- J. octagon

5. A triangular pennant has a base of 12 inches and a height of 18 inches. What is the area of the pennant?

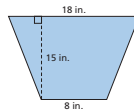
- A. 30 square inches
- B. 66 square inches
- C. 108 square inches
- D. 216 square inches

6. Which statement about the square and the rectangle is correct?



- F. They have the same perimeter and the same area.
- G. They have the same perimeter but different areas.
- H. They have different perimeters but the same area.
- J. They have different perimeters and different areas.

7. Katrina is making a wall hanging in the shape of a trapezoid.



What is the area of Katrina's wall hanging?

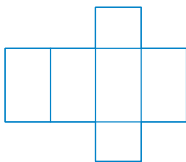
- A. 144 square inches
- B. 195 square inches
- C. 270 square inches
- D. 390 square inches

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8. Tina wants to install a hot tub in her backyard. The backyard is 15 ft by 40 ft, and the hot tub will be 7 ft by 7 ft. What is the area of the backyard that will not be covered by the hot tub?

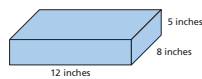
- F. 82 ft<sup>2</sup>
- G. 551 ft<sup>2</sup>
- H. 41 ft<sup>2</sup>
- J. 438 ft<sup>2</sup>

9. What three-dimensional figure will be formed from the net?



- A. triangular prism
- B. square pyramid
- C. rectangular prism
- D. triangular pyramid

10. What is the surface area of the rectangular prism?



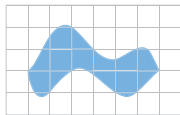
- F. 192 square inches
- G. 272 square inches
- H. 392 square inches
- J. 480 square inches

**CONSTRUCTED RESPONSE**

11. The volume of a rectangular prism is 810 cubic centimeters. The length is 18 centimeters and the width is 9 centimeters. What is the height? Explain how you found your answer.

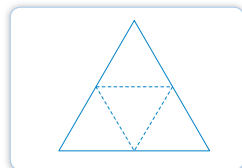
5 cm; Sample answer: Divide the volume by the product of 18 and 9.

12. Explain how to estimate the area of an irregular figure like the one shown. Then give the estimated area of the figure.



To estimate the area, count each square that is completely covered or mostly covered as 1. Count each square that is only about half covered as 1/2. Those squares that are not covered or mostly not covered by the figure are not counted at all. The sum of these totals will give an estimate of the area of the figure. The area of this figure is about 10 square units.

13. Draw a net of a triangular pyramid.



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