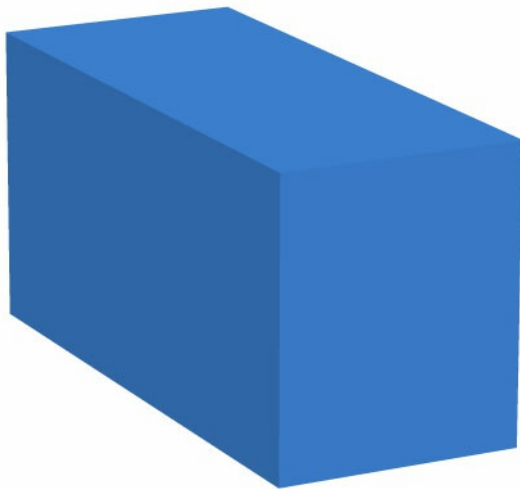


Prisms: Area & Volume

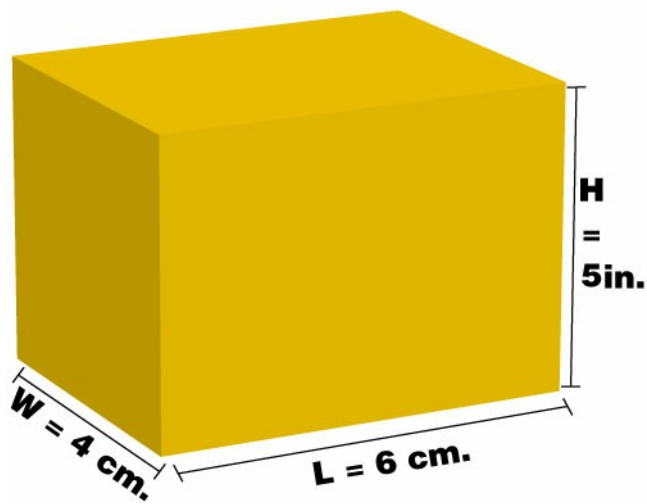
Read each question and circle the correct answer.

1. The formula for the volume of a rectangular prism is length x width x height.
 - A. True
 - B. False
2. If you want to know the maximum amount of water it takes to fill a rectangular fish tank, you need to know:
 - A. the volume of the fish tank
 - B. the surface area of the fish tank
 - C. the area of the bottom of the fish tank
 - D. the perimeter of the bottom of the fish tank
3. The area of the base of a prism is always:
 - A. a square
 - B. a rectangle
 - C. a circle
 - D. a triangle
4. How many sides make up the total surface area of a box?



- A. 3
- B. 4
- C. 5
- D. 6

5. What is the volume of this box below?



A. 15 cm.^3

B. 20 cm.^3

C. 120 cm.^3

D. 148 cm.^3

6. The volume of a box is 400 in.^3 and the height is 5 in. What is the area of the base of the box?

A. 80 in.

B. 80 in.^2

C. 8 in.

D. 8 in.^2

7. Suppose you have the same box with a volume of 400 in.^3 and a height of 5 in., but you also now know that the box is 8 in. wide. What is the length of the box?

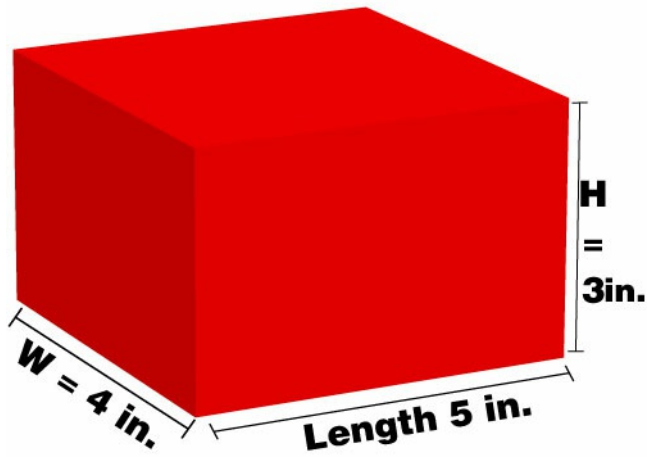
A. 5 in.

B. 5 in.^2

C. 10 in.

D. 10 in.^2

8. What is the surface area of this rectangular prism below?



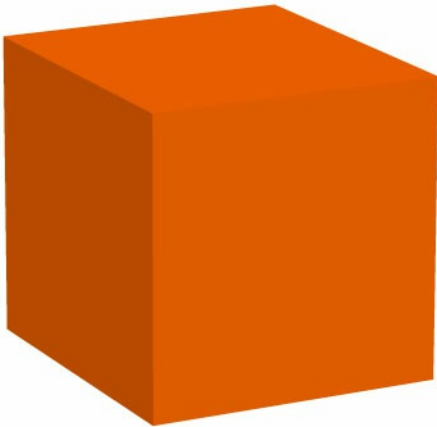
A. 60 in.^2

B. 64 in.^2

C. 70 in.^2

D. 94 in.^2

9. What is the length of each side of a cube whose total surface area is 96 in.^2 ?



A. 4 in.

B. 12 in.

C. 16 in.

D. 24 in.

10. You want to wrap a gift, but you don't know how much wrapping paper you need. You put it in a box that is 3 in. long, 5 in. wide, and 10 in. high. How much gift wrap will you need to cover the entire box?

A. 150 in.^3

C. 190 in.^2

B. 150 in.^2

D. 190 in.^3