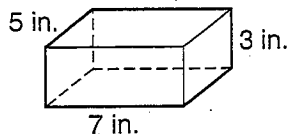


# Surface Area

You can use formulas to find the surface area of different solid figures.

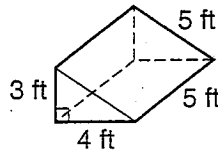
Rectangular prism



$$\begin{aligned} SA &= 2lw + 2lh + 2wh \\ &= 2(5 \times 7) + 2(5 \times 3) + 2(7 \times 3) \\ &= 70 + 30 + 42 \\ &= 142 \end{aligned}$$

The surface area is 142 in<sup>2</sup>.

Triangular prism

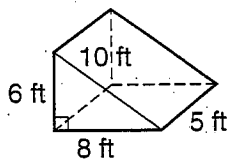


$$\begin{aligned} SA &= 2\left(\frac{1}{2} \times 4 \times 3\right) + (3 \times 5) + (4 \times 5) + (5 \times 5) \\ &= 12 + 15 + 20 + 25 \\ &= 72 \end{aligned}$$

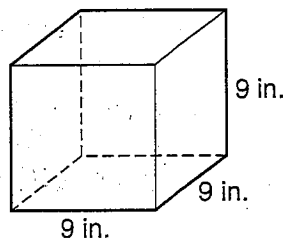
The surface area is 72 ft<sup>2</sup>.

Find the surface area of each solid.

1.



2.



Find the surface area of each rectangular prism.

3.  $l = 5.5$  cm,  $w = 4.5$  cm,  $h = 3.5$  cm

\_\_\_\_\_

4.  $l = 15$  in.,  $w = 9$  in.,  $h = 3.8$  in.

\_\_\_\_\_

5.  $l = 2$  yd,  $w = 6$  yd,  $h = 1.7$  yd

\_\_\_\_\_

6. **Reasoning** Write the dimensions of two different rectangular prisms that have the same surface area.

\_\_\_\_\_

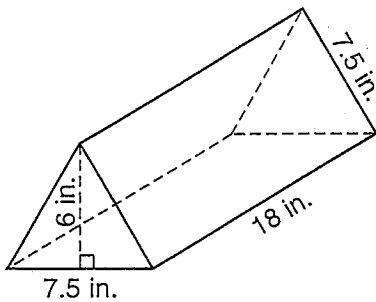
\_\_\_\_\_

\_\_\_\_\_

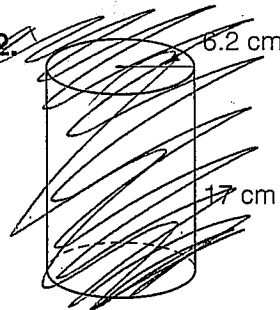
# Surface Area

Find the surface area of each solid.

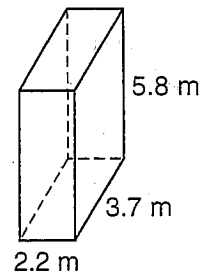
1.



2.



3.



Find the surface area of each rectangular prism.

4.  $l = 6.9$  mm,  $w = 8.2$  mm,  $h = 14$  mm

\_\_\_\_\_

5.  $l = 3.4$  cm,  $w = 12.7$  cm,  $h = 16.5$  cm

\_\_\_\_\_

6.  $l = 5.7$  yd,  $w = 9$  yd,  $h = 12.9$  yd

\_\_\_\_\_

7. **Reasoning** Margaret wants to cover a footrest in the shape of a rectangular prism with cotton fabric. The footrest is 18 in.  $\times$  12 in.  $\times$  10 in. She has 1 yd<sup>2</sup> of fabric. Can she completely cover the footrest?

\_\_\_\_\_  
 \_\_\_\_\_  
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## Test Prep

8. Which is the surface area of a rectangular prism with a length of 2.3 in., a width of 1.1 in., and a height of 3 in.?

- A. 26.48 in<sup>2</sup>      B. 25.46 in<sup>2</sup>      C. 24.58 in<sup>2</sup>      D. 21.5 in<sup>2</sup>

9. **Writing in Math** A square pyramid has 2 m sides on the base. Each face is a triangle with a base of 2 m and a height of 1.5 m. Explain how to find the surface area.

\_\_\_\_\_  
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