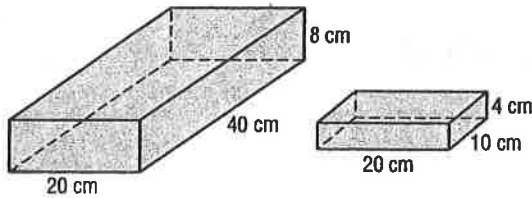


13-4 Skills Practice

Congruent and Similar Solids

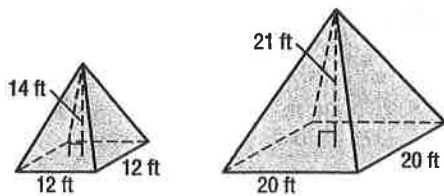
Determine whether each pair of solids are *similar*, *congruent*, or *neither*.

1.



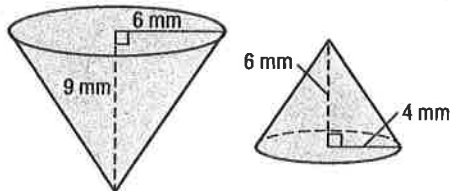
similar $\rightarrow 1:2$

2.



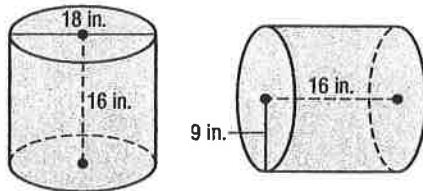
Neither

3.



similar $\rightarrow 2:3$

4.



congruent

For Exercises 5–8, refer to the two similar prisms.

5. Find the scale factor of the two prisms.

$$2/3$$

6. Find the ratio of the surface areas.

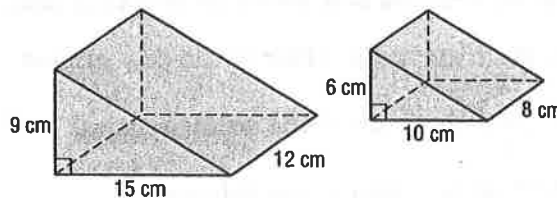
$$4/9$$

7. Find the ratio of the volumes.

$$8/27$$

8. Suppose the volume of the larger prism is 810 cubic centimeters. Find the volume of the smaller prism.

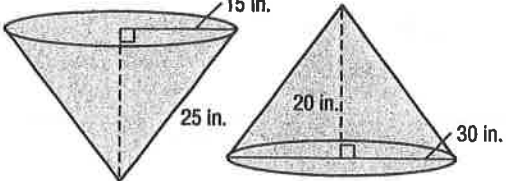
$$\frac{8}{27} = \frac{x}{810} \quad 240\text{cm}^3$$

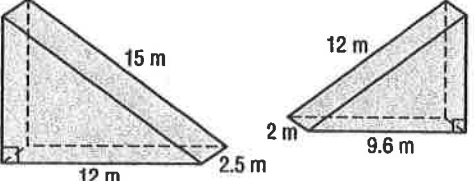


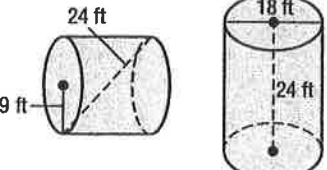
13-4 Practice

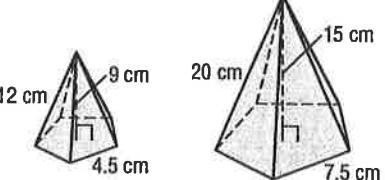
Congruent and Similar Solids

Determine whether each pair of solids are *similar*, *congruent*, or *neither*.

1.  congruent

2.  Similar $\rightarrow 4/5$

3.  neither

4.  Similar $\rightarrow 3/5$

For Exercises 5–8, refer to the two similar prisms.

5. Find the scale factor of the two prisms.

$3/5$

6. Find the ratio of the surface areas.

$9/25$

7. Find the ratio of the volumes.

$27/125$

8. Suppose the surface area of the larger prism is 2560 square meters. Find the surface area of the smaller prism.

$\frac{9}{25} = \frac{x}{2560} \quad x = 921.6 \text{ m}^2$

9. **MINIATURES** Frank Lloyd Wright designed every aspect of the Imperial Hotel in Tokyo, including the chairs. The dimensions of a miniature Imperial Hotel chair are 6.25 inches \times 3 inches \times 2.5 inches. If the scale of the replica is 1:6, what are the dimensions of the original chair?

$37.5 \times 18 \times 15$

