Volume:

Prism:

Lateral Faces:

Altitude/Height:

Right Prism

Oblique Prism
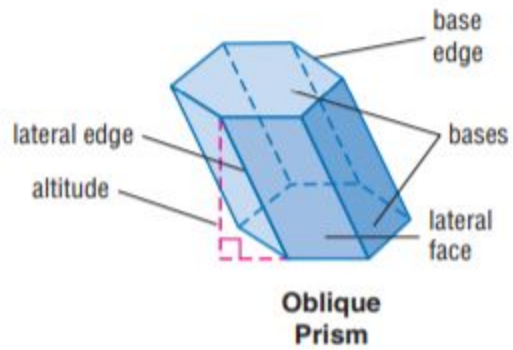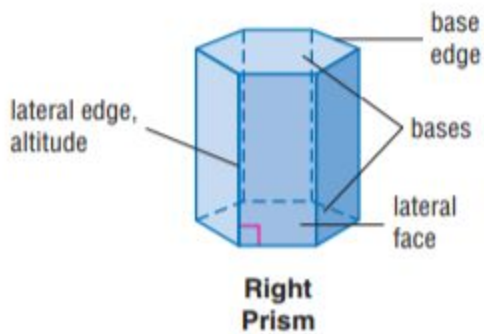
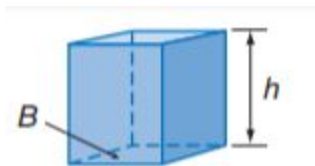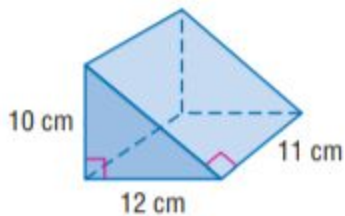**Volume of a Prism** is $V = Bh$, where B is _____ and

h is the _____ of the prism.
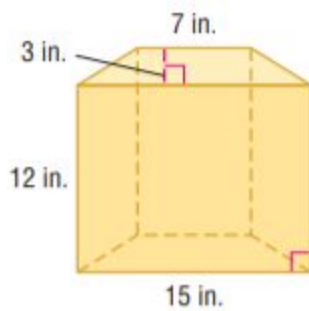

1. Find the volume of the following:
    a.

b.

10 ft

15 ft

9 ft

c.

7 in.

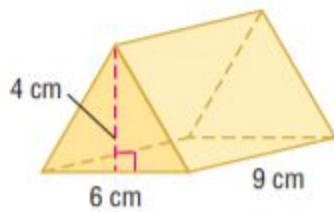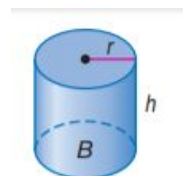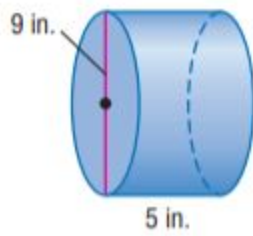3 in.

12 in.

15 in.

d.

4 cm

6 cm

9 cm
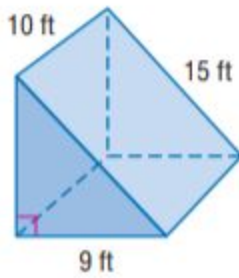
Cylinder:

Volume of a Cylinder is $V = Bh$ or $V = \pi r^2 h$ where B is the _____

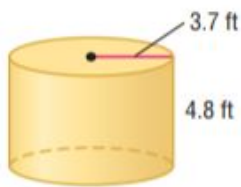and h is the _____ and r is the _____

of the cylinder.

r

h

B

2. Find the volume of the following:
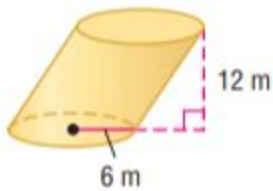
a.

9 in.

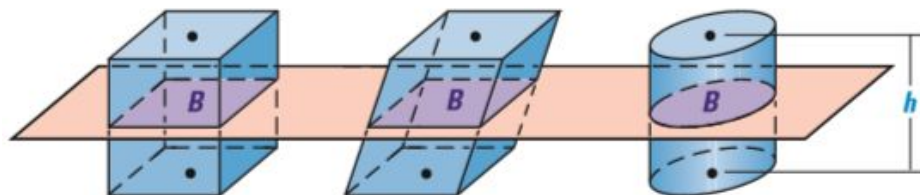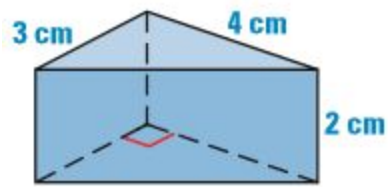5 in.

b.

3.7 ft

4.8 ft

c.

12 m

6 m

Cavalieri's Principle (Theorem 12.6)	If two solids have the same height and the same cross-sectional area at every level, then they have the same volume.

All three solids below have cross sections with equal areas, B, and all three have equal heights, h.
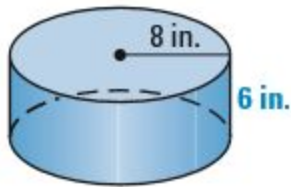
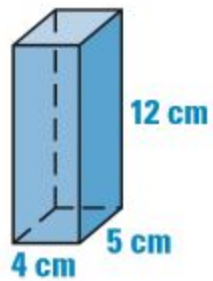B   B   B   h
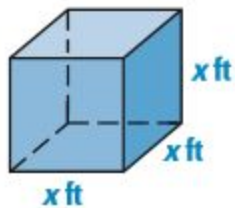
3. Find the volume of the solids below:

a.

3 cm   4 cm   2 cm

b.

8 in.   6 in.

c.

12 cm   5 cm   4 cm

4. Find the missing variable:

a.

Cube, $V = 100 \text{ ft}^3$

x ft   x ft   x ft

b.

Right cylinder, $V = 4561 \text{ m}^3$

x m   12 m