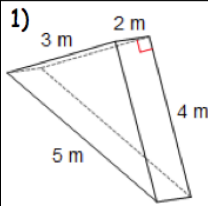
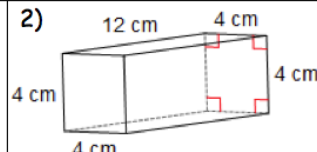
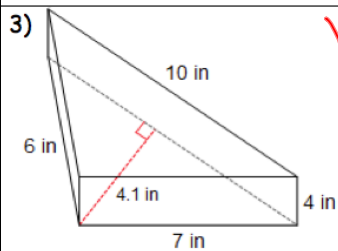


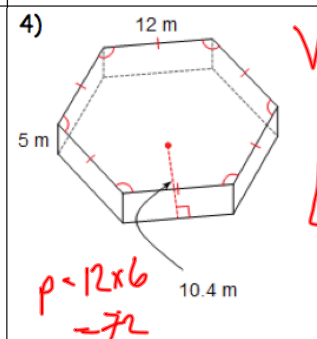
10.3 Practice Solutions

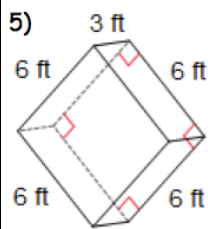
Directions: Find the volume of each figure. Round to the nearest tenth if necessary.

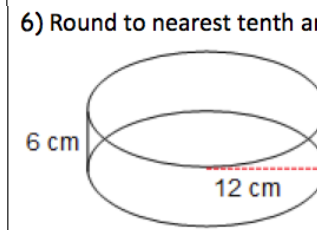
1)  $V = Bh$
 $= (\frac{1}{2}bh)h$
 $= \frac{1}{2}(3)(4)(2)$
 $= 12 \text{ m}^3$

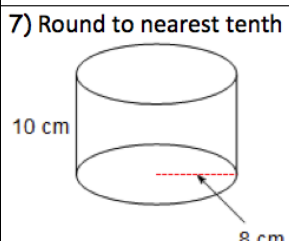
2)  $V = Bh$
 $= l \times w \times h$
 $= 4 \times 4 \times 12$
 $= 192 \text{ cm}^3$

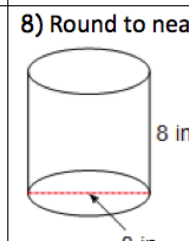
3)  $V = (\frac{1}{2}bh)h$
 $= \frac{1}{2}(10)(4.1)(6)$
 $= 82 \text{ in}^3$

4)  $V = (\frac{1}{2}ap)h$
 $= (\frac{1}{2})(10.4)(72)(5)$
 $= 1872 \text{ m}^3$
 $p = 12 \times 6 = 72$

5)  $V = (l \times w) \times h$
 $= (6)(6) \times 3$
 $= 108 \text{ ft}^3$

6) Round to nearest tenth and leave in terms of π .  $V = \pi r^2 h$
 $= \pi (4^2) \cdot 6$
 $= 864\pi \text{ cm}^3$
 or
 2714.3 cm^3

7) Round to nearest tenth and leave in terms of π .  $V = \pi r^2 h$
 $= \pi (8^2)(10)$
 $= 640\pi \text{ cm}^3$
 or
 2010.6 cm^3

8) Round to nearest tenth and leave in terms of π .  $V = \pi r^2 h$
 $= \pi (4^2)(8)$
 $= 402.1 \text{ in}^3$
 or
 $128\pi \text{ in}^3$

Directions: Find the missing length.

9) The volume of a cylinder is $135\pi \text{ cm}^3$. The height of the cylinder is 15 cm. What is the radius of the base of the cylinder?

$$V = \pi r^2 h$$
$$\frac{135\pi}{15\pi} = \frac{\pi r^2 \cdot 15}{15\pi}$$
$$9 = r^2$$
$$\boxed{3 \text{ cm} = r}$$

10) The volume of a cylinder is $600\pi \text{ cm}^3$. The diameter of a base of the cylinder is 10 cm. What is the height of the cylinder?

$$V = \pi r^2 h$$
$$600\pi = \pi 5^2 h$$
$$\frac{600\pi}{25\pi} = \frac{25\pi h}{25\pi}$$
$$\boxed{24 \text{ cm} = h}$$

$d = 10$
 $r = 5$