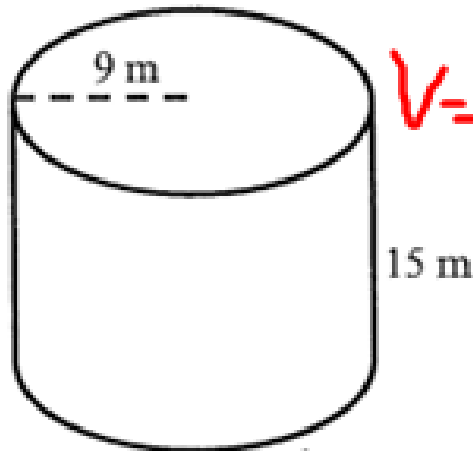Get out your homework and have it ready to check. Quiz tomorrow!

Classwork - Quiz Review

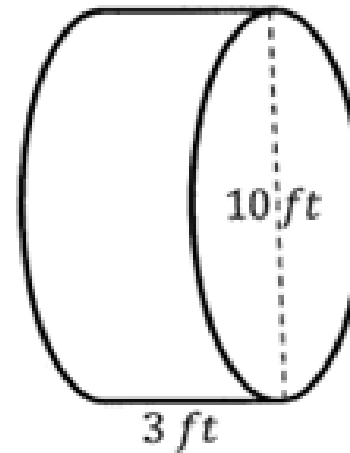1)

$B = 3.14 \cdot 9^2 = 254.34 m^2$

2)

9 m

15 m

$V = 254.34(15)$

$V = 3.14(9^2)(15)$

Volume = $3815.1 m^3$

$r = 5$

10 ft

3 ft

$V = 3.14(5^2)(3)$

Volume = $235.5 ft^3$

3)
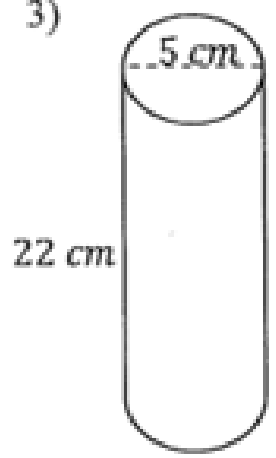
$r = 2.5$

$V = 3.14(2.5^2)(22)$

$V = 431.75 cm^3$

Volume = __431.8 cm³__

4)

6.5 in

13 in
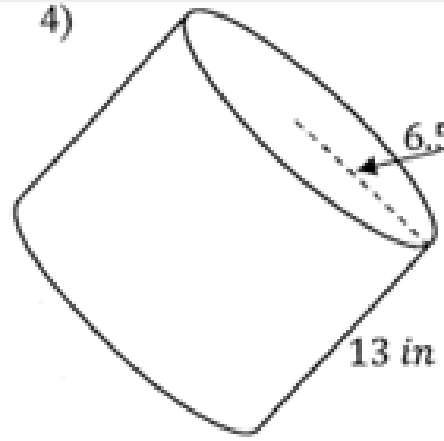
$V = 3.14(6.5^2)(13)$

Volume = __1724.6 in³__

5)

8 in

3 in

5 in
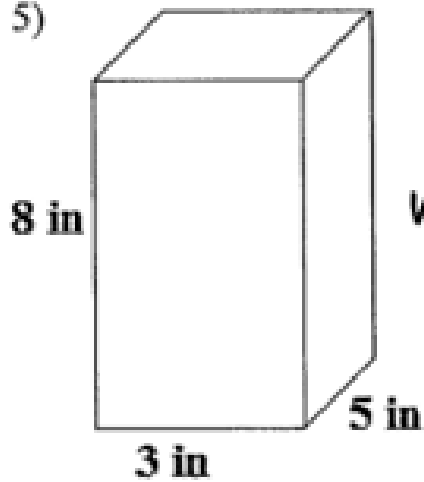
$V = 8 \cdot 3 \cdot 5$

Volume = __120 in³__

6)

8 cm

10 cm

6 cm

12 cm
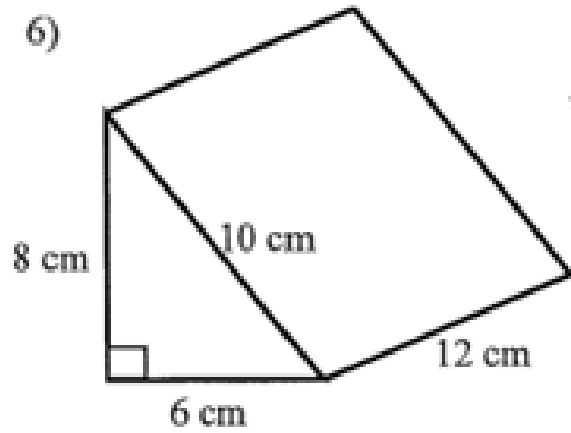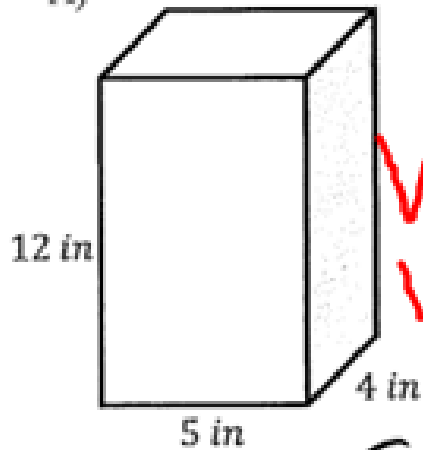
$B = \frac{1}{2}(8)(6) = 24 cm^2$

$V = 24(12)$

Volume = __288 cm²__

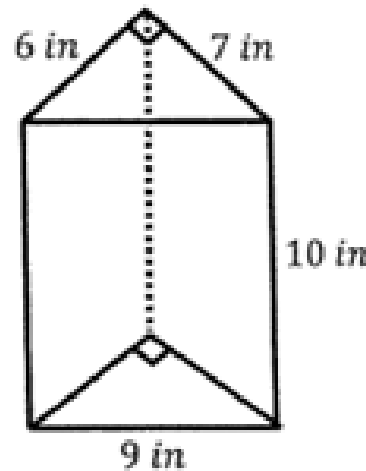7) List the 3D figures in order of which can hold the largest amount of liquid to the least? SHOW WORK

A)

12 in

5 in

4 in

$V = Bh$

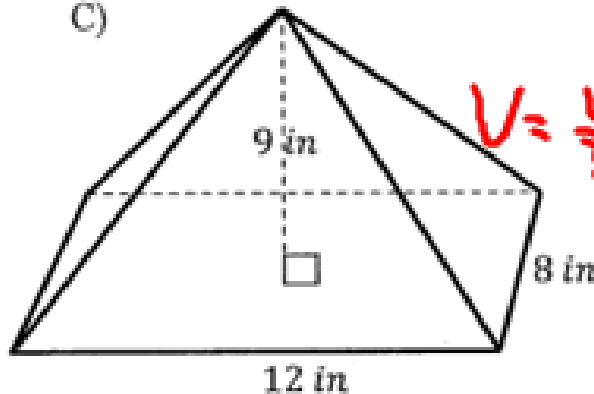$V = lwh$

$V = 12 \cdot 5 \cdot 4 = 240 \, in^3$

B)

6 in   7 in

10 in

9 in

$B = \frac{1}{2}(6)(7) = 21 in^2$

$V = 21(10) = 210 in^3$

C)

9 in

8 in

12 in

$V = \frac{1}{3}Bh$

$B = 8(12) = 96 \, in^2$

$V = \frac{1}{3}(96)(9) = 288 in^3$

D)

13 in

5 in

$r = 2.5$
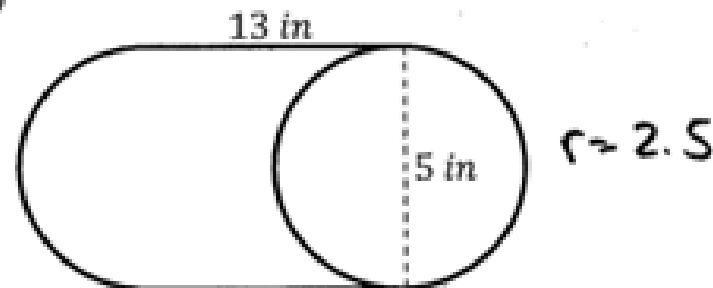
$V = 3.14(2.5^2)(13)$

$V = 255.1 in^3$

Greatest to least → Pyramid, Cylinder, Rectangular Prism, Triangular Prism

Circumference of a Circle	Area of a Circle
$C = \pi d$ OR $C = 2\pi r$	$A = \pi r^2$ OR $A = \pi \cdot r \cdot r$
Can use radius or diameter	Can ONLY use radius

Use the 3.14 for π.

1) Find the circumference and area of the following circles. Use the 3.14 for π. SHOW WORK and LABEL. Round to the nearest tenth → One number past the decimal point.

A)

9 cm

B)

11 m

C)

12 cm
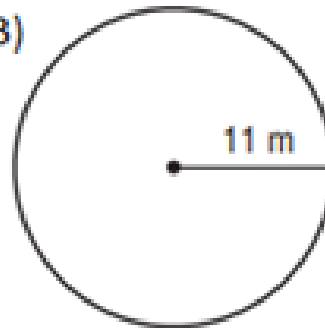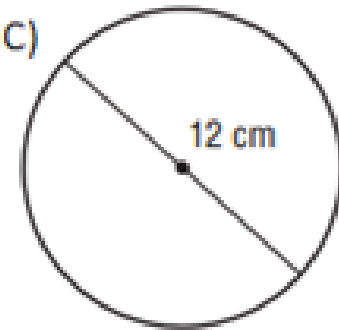
C = _____

A = _____

C = _____

A = _____

C = _____

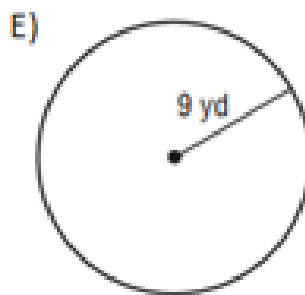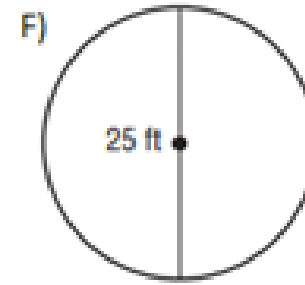A = _____

D)

17.5 km

C = _____
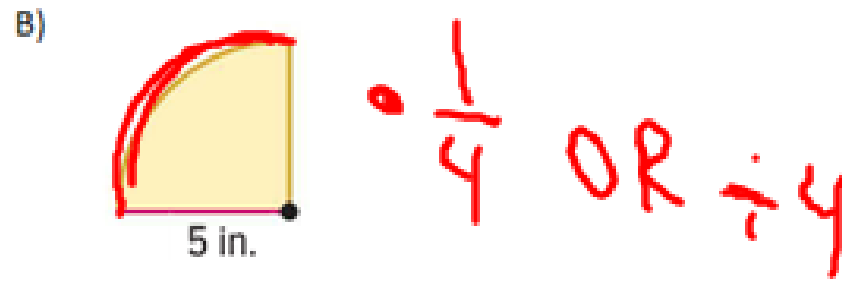
A = _____

E)

9 yd

C = _____

A = _____

F)

25 ft
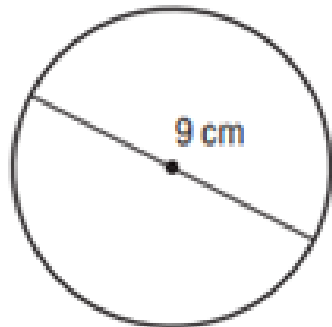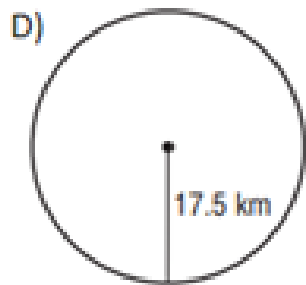
C = _____

A = _____

2) Find the distance around and area of the following figures. Use the 3.14 for π. SHOW WORK and LABEL. Round to the nearest tenth → One number past the decimal point.

A)

20.4 yd

$\cdot \frac{1}{2}$ OR ÷2

B)

5 in.

$\cdot \frac{1}{4}$ OR ÷4

3) A rotating sprinkler that sprays water at a radius of 11 feet is used to water a lawn. Find the area of the lawn that is watered.

4) A circle has circumference of 47.1 feet. Determine the area of the circle. Use the 3.14 for π. Round to the nearest tenth → One number past the decimal point.

Area = _____

AREA OF A TRIANGLE

$$Area = \frac{base \cdot height}{2}$$

OR

$$Area = \frac{1}{2} \cdot base \cdot height$$

AREA OF A PARALLELOGRAM

$$Area = base \cdot height$$

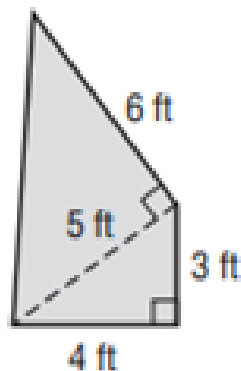Base and height **always** form a right angle.

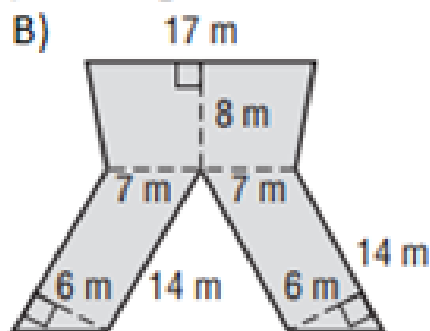## AREA OF A TRAPEZOID

$$Area = \frac{1}{2}(b_1 + b_2) \cdot height$$

OR

$$Area = \frac{height \cdot (b_1 + b_2)}{2}$$

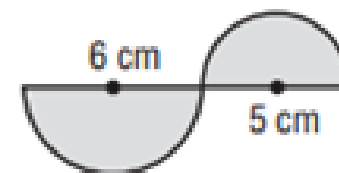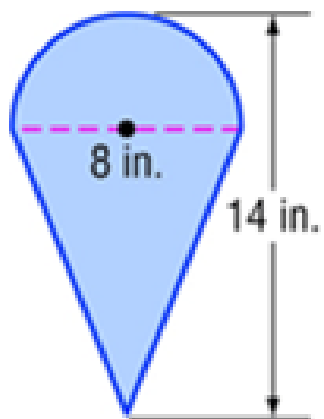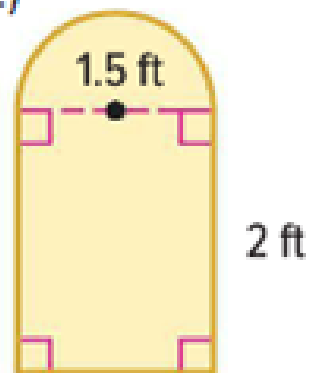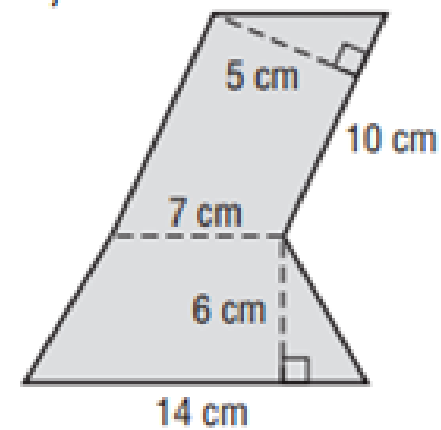5) Find the area of the following composite figures. Round to nearest tenth. SHOW WORK AND LABEL.

A)

6 ft

5 ft

3 ft

4 ft

B)

17 m

8 m

7 m 7 m

6 m 14 m 6 m

14 m

C)

6 cm

5 cm

D)

8 in.

14 in.

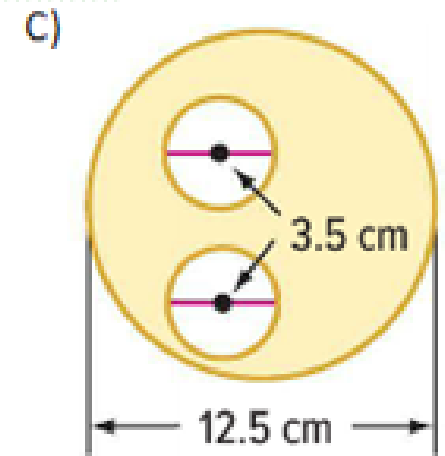Area = _____

E)

1.5 ft

2 ft

Area = _____

F)

5 cm

10 cm

7 cm

6 cm

14 cm
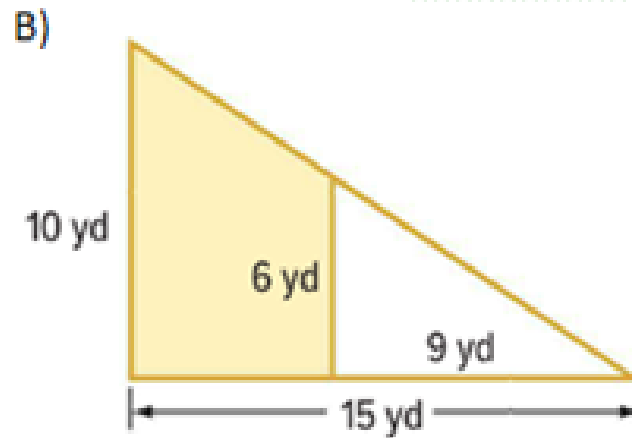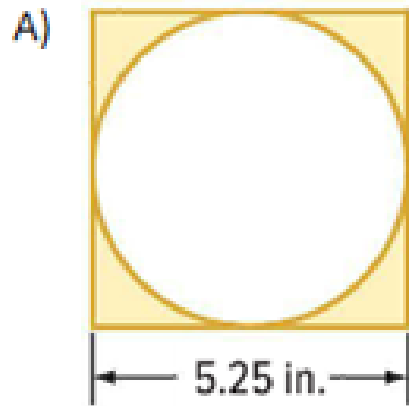
Area = _____

6) Find the area of the shaded region in each figure below. Round to the nearest tenth. SHOW WORK

A)

5.25 in.

B)

10 yd
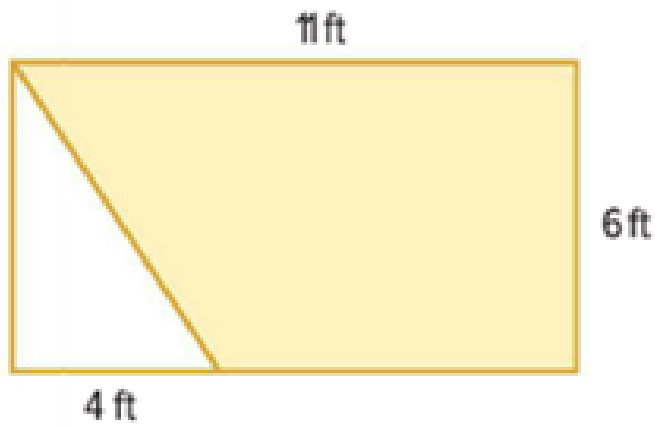6 yd
9 yd
15 yd

C)

3.5 cm
12.5 cm

Shaded Area = _____

Shaded Area = _____

Shaded Area = _____

D)

11 ft

6 ft

4 ft
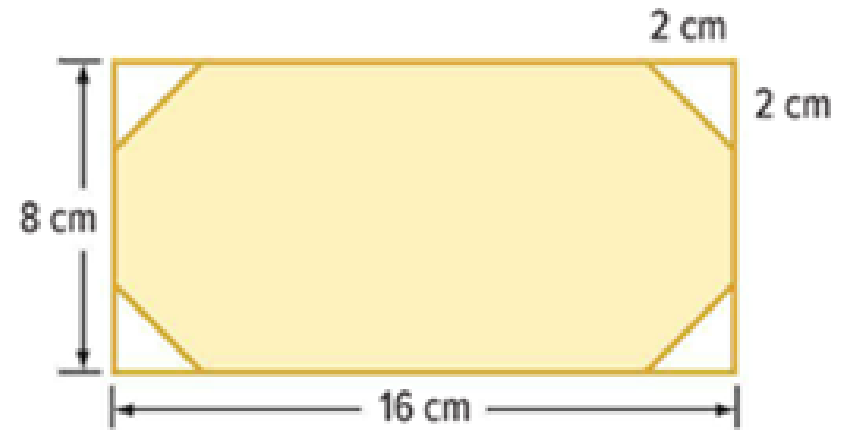
Shaded Area = _____

E)

2 cm

2 cm

8 cm

16 cm

Shaded Area = _____

7) Find the volume of the following 3D figures. Round to the nearest tenth. SHOW WORK AND LABEL.

Volume of Prism

$$V = Bh$$

Volume of Pyramid

$$V = \frac{1}{3}Bh$$
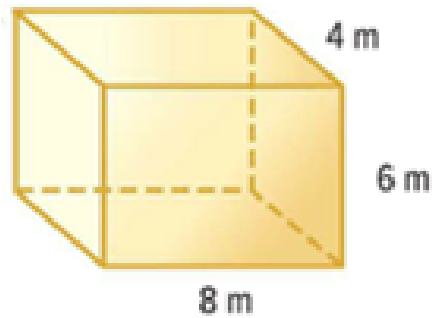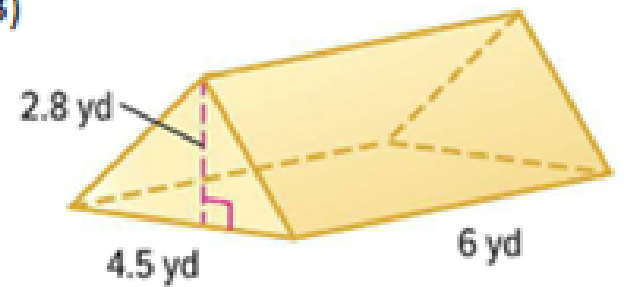
Volume of Cylinder
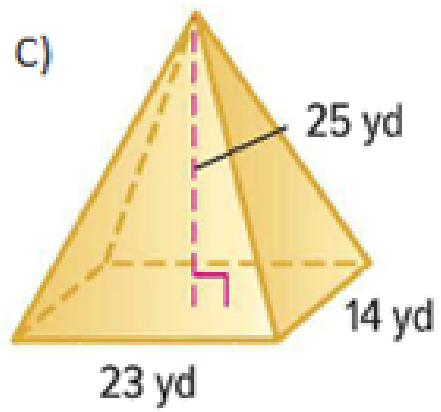
$$V = Bh$$

B → Area of the Base

h → height

A)

4 m

6 m

8 m

V = _____

B)

2.8 yd

4.5 yd

6 yd

V = _____

C)

25 yd

14 yd

23 yd

V = _____

D)

24 mm

5 mm

V = _____

E)

6 ft

7 ft

6 ft
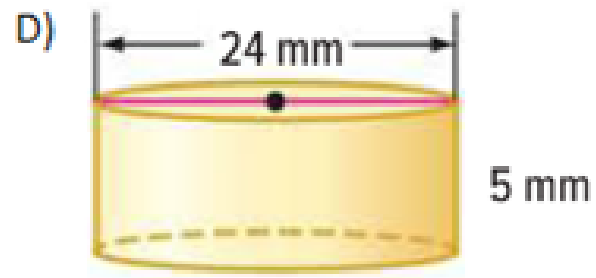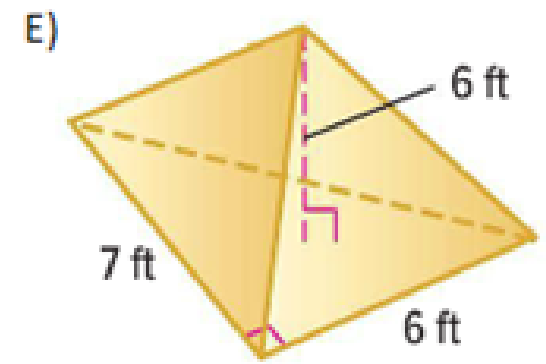
V = _____

8) Which container holds more detergent? SHOW WORK

Soapy Suds: 13 in., 12 in., 8 in.

CLEAN & BRIGHT: 8 in., 9 in., 13 in.
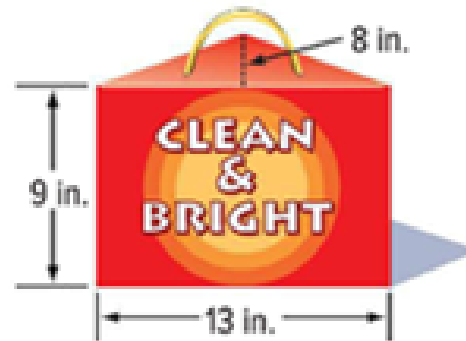
9) The picture below shows the dimensions of an office. It costs about $0.11 per year to air condition one cubic foot of space. On average, how much does it cost to air condition the office for **one month**?

12 ft, 25 ft, 32 ft
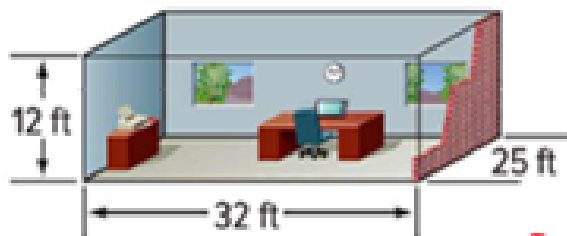
$$V = 12(32)(25) = 9600 \text{ ft}^3$$

$$9600 \cdot \$0.11$$

Volume of Office = 9600 ft^3 Cost per Year = $\$1056$ Cost per Month = _____

10) Find the height of each of the following 3D figures. Round to the nearest tenth. SHOW WORK AND LABEL.

A) Triangular prism with triangle base with base height of 3 inches and base length of 7 inches and a volume of 63 square inches.

cubic

$$V = Bh$$

$$B = \frac{1}{2} \cdot 3 \cdot 7 = 10.5 \, sin^2$$

$$\frac{63 = 10.5h}{10.5} \quad \frac{}{10.5}$$

6 in

$$6 = h$$

h = _____

B) Rectangular pyramid with base width of 5 feet and base length of 12 feet and a volume of 280 square feet.

cubic

$$V = \frac{1}{3}Bh$$

h = _____

C) Cylinder with radius of 5 meters and a volume of 706.5 square meters.

h = _____