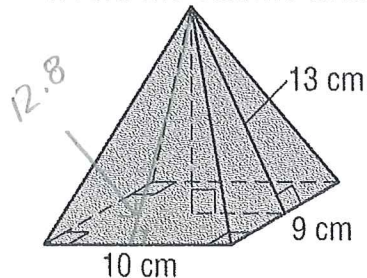Name: <ins>*Key* – You must show work!</ins>

Putting it All Together! Homework #1 2019

Directions: If it is not indicated, round to the nearest thousandth.
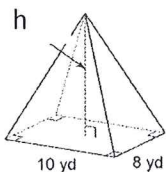
1. Find the volume and surface area.

$H=12cm$

12.8

.13 cm

9 cm

10 cm

$SA \approx 335.0 \, cm^2$

$V \approx 360.0 \, cm^3$

2. The volume of the rectangular pyramid has a volume of about 266.67 yd³. The base of the pyramid is a rectangle that is 10 yd by 8 yd. Find the height of the pyramid.

h

10 yd   8 yd

$h = 10 \, yd$

3. The volume of a cylinder is 7875π cubic meters and the radius is 15 meters. Find the height the cylinder.

$h = 35m$

4. The volume of a rectangular pyramid is 84 in³ and the area of the base is 12 in². Find the height of the pyramid.

$h = 21 in$

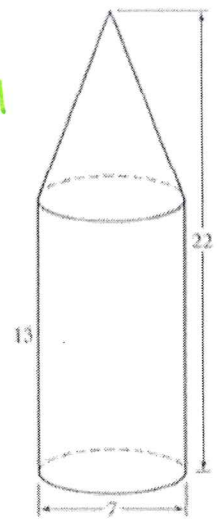5. The surface area of a cone is 250π km². The cone has a diameter of 20 km. Find the slant height of the cone.

$l = 15 km$

6. Find the surface area and volume of the composite solid.

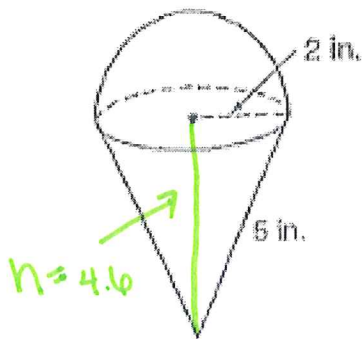$$SA \approx 431.0 \text{ units}^2$$
$$V \approx 615.8 \text{ units}^3$$

$\ell = 9.7$

22

13

7

7. Find the surface area and volume of the composite solid.
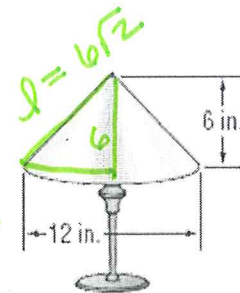
2 in.

5 in.

$h = 4.6$

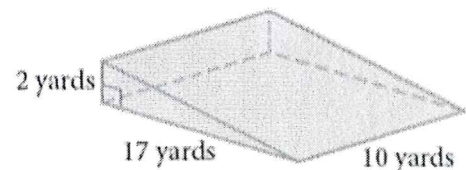$$SA \approx 56.5 \text{ in}^2$$
$$V \approx 36.0 \text{ in}^3$$

8. **LAMPS** Diego has a conical lampshade with an altitude of 6 inches and a diameter of 12 inches. Find the lateral area of the lampshade.

Just LA! $LA = 36\pi\sqrt{2} \text{ in}^2$

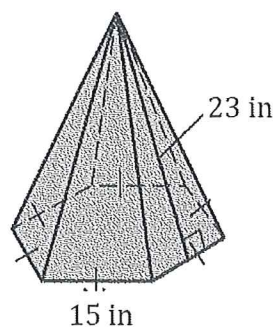$\ell = 6\sqrt{2}$

6

6 in.

12 in.

9. *Application* A contractor needs to build a ramp, as shown at right, from the street to the front of a garage door. How many cubic yards of fill will she need?

$$V = 2016 \text{ ft}^3$$

2 yards

17 yards

10 yards

10. Find the surface area.
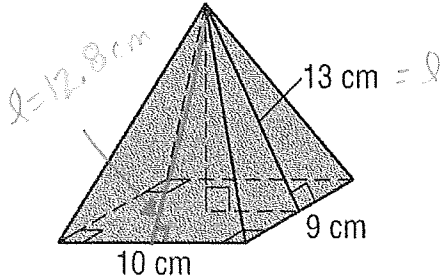
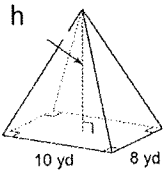$$SA \approx 1619.567 \text{ in}^2$$

23 in

15 in

Putting it All Together! Homework #1   2019

Directions: If it is not indicated, round to the nearest thousandth.

1. Find the volume and surface area. $H = ?$

$l = 12.8 cm$

13 cm $= l$

9 cm

10 cm

2. The volume of the rectangular pyramid has a volume of about 266.67 yd³. The base of the pyramid is a rectangle that is 10 yd by 8 yd. Find the height of the pyramid.
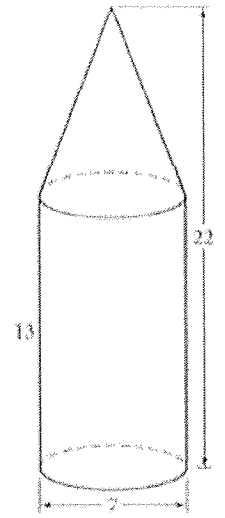
h

10 yd   8 yd

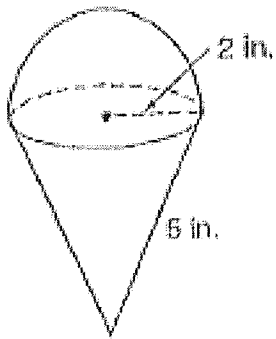3. The volume of a cylinder is 7875π cubic meters and the radius is 15 meters. Find the height the cylinder.

4. The volume of a rectangular pyramid is 84 in³ and the area of the base is 12 in². Find the height of the pyramid.

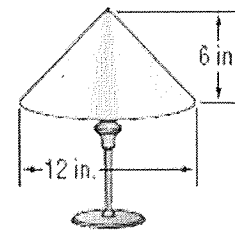5. The surface area of a cone is 250π km². The cone has a diameter of 20 km. Find the slant height of the cone.

6. Find the surface area and volume of the composite solid.

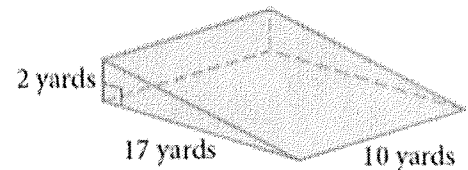7. Find the surface area and volume of the composite solid.

2 in.

5 in.

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23 in

15 in