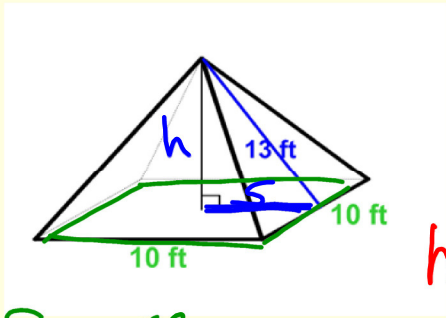


Find the volume of the pyramid or cone.

1.



Square

$$B = s^2$$

$$B = 10^2 = 100$$

$$h^2 + 5^2 = 13^2$$

$$h^2 + 25 = 169$$

$$\quad -25 \quad -25$$

$$\sqrt{h^2} = \sqrt{144}$$

$$h = 12$$

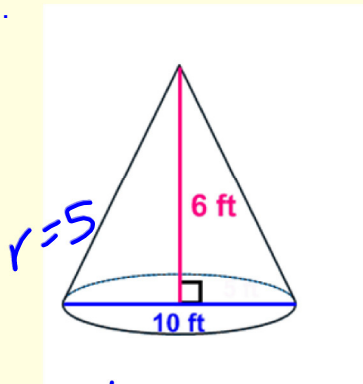
$$V = \frac{1}{3} B h$$

$$V = \frac{1}{3} (100)(12)$$

$$V = 400 \text{ ft}^3$$

Find the volume of the pyramid or cone.

2.



Circle

$$B = \pi r^2$$

$$B = \pi (5)^2 = 25\pi$$

$$h = 6$$

$$V = \frac{1}{3} B h$$

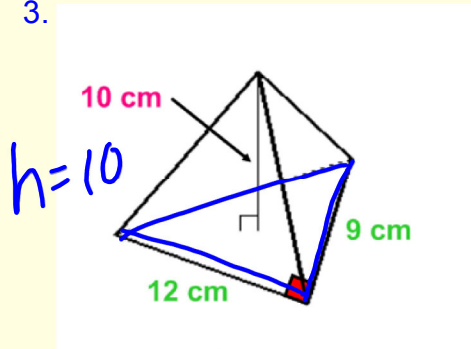
$$V = \frac{1}{3} (25\pi)(6)$$

$$V = 50\pi$$

$$\approx 157.1 \text{ ft}^3$$

Find the volume of the pyramid or cone.

3.



Triangle

$$B = \frac{1}{2}bh$$

$$B = \frac{1}{2}(12)(9)$$

$$B = 54$$

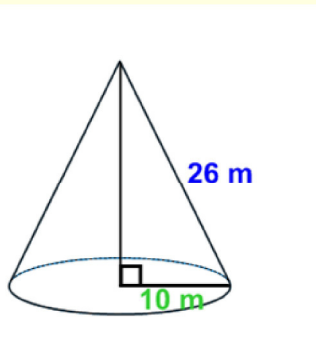
$$V = \frac{1}{3}Bh$$

$$V = \frac{1}{3}(54)(10)$$

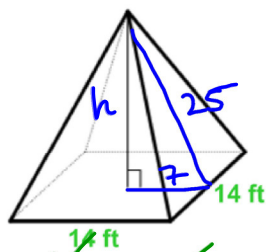
$$V = 180 \text{ cm}^3$$

Find the volume of the pyramid or cone.

4.



5. Given a the pyramid with a surface area of 896 ft<sup>2</sup>, find the slant height, height, and volume.



$P = 56$   
 $B = 196$

$$896 = \frac{56l}{2} + 196$$

$$896 = 28l + 196$$

$$\begin{array}{r} 896 \\ -196 \\ \hline 700 \end{array} = \frac{28l}{28}$$

$$\frac{700}{28} = \frac{28l}{28}$$

$$\boxed{25 = l}$$

$$SA = \frac{Pl}{2} + B$$

Find h:  $h^2 + 7^2 = 25^2$

$$h^2 + 49 = 625$$

$$\sqrt{h^2} = \sqrt{576}$$

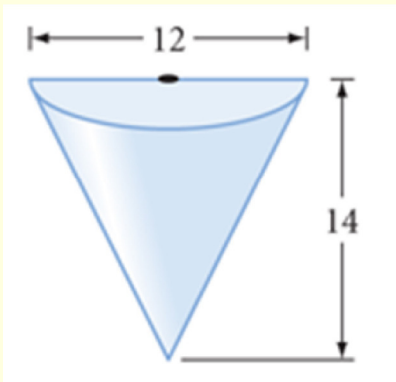
$$\boxed{h = 24}$$

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

$$V = \frac{1}{3} (196)(24)$$

$$\boxed{V = 1568 \text{ ft}^3}$$

6. Find the volume of the semicircular cone figure below.



7. The volume of a cone that is  $192\pi \text{ cm}^3$  has a radius of 8 cm. Find the height, slant height, and the surface area of the cone.

