

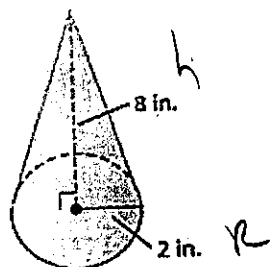
Name key
Mrs. Roubos

Date _____
8R Period _____

$$V = \frac{1}{3} \pi r^2 h$$

Volume of a Cone
Homework

1) What is the volume of the cone below. Use $\pi = 3.14$. Round to the nearest tenth.



$$V = \frac{1}{3} \pi r^2 h$$
$$V = \frac{1}{3} \cdot (3.14) \cdot (2)^2 \cdot (8)$$
$$V = \frac{1}{3} \cdot (3.14) \cdot 4 \cdot 8$$

$$V = 33.5 \text{ in}^3$$

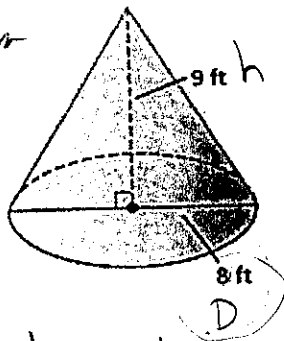
3) Find, in terms of π , the volume of a cone whose height is 3 yards and whose radius is 2 yards.

Symbol π Don't multiply by π

$$V = \frac{1}{3} \pi r^2 h$$
$$V = \frac{1}{3} \cdot \pi \cdot (2)^2 \cdot (3)$$
$$V = \left(\frac{1}{3}\right) \cdot \pi \cdot (4) \cdot (3)$$
$$V = 4 \pi \text{ yd}^3$$

2) Find the volume of the cone. Round to the nearest tenth.

π -button



$\frac{8}{2}$

$$D = 8$$
$$R = \frac{D}{2}$$
$$R = \frac{8}{2}$$
$$R = 4$$

$$V = \frac{1}{3} \pi r^2 h$$
$$V = \frac{1}{3} \cdot \pi \cdot (4)^2 \cdot (9)$$
$$V = \frac{1}{3} \cdot \pi \cdot 16 \cdot 9$$

$$V = 150.8 \text{ ft}^3$$

4) Find to the nearest cubic foot, the volume of a cone whose height is 7 feet and whose diameter is 16 feet.

π -button

$\frac{16}{2}$

$$R = \frac{D}{2}$$
$$R = \frac{16}{2}$$
$$R = 8$$

$$V = \frac{1}{3} \pi r^2 h$$
$$V = \frac{1}{3} \cdot \pi \cdot (8)^2 \cdot (7)$$
$$V = \frac{1}{3} \cdot \pi \cdot 64 \cdot 7$$

$$V = 469 \text{ ft}^3$$