

Name: _____

Key

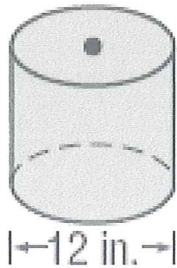
Hour: _____

Basic Surface Area and Volume of Cylinders Homework

Directions: Find the volume and surface area of the solid, round to the nearest tenth if needed.

1.

$r = 6$



$$SA = 2\pi r^2 + 2\pi rh$$

$$SA = 2\pi 6^2 + 2\pi 6 \cdot 10$$

$$SA \approx 603.2 \text{ in}^2$$

SA = 603.2 in²

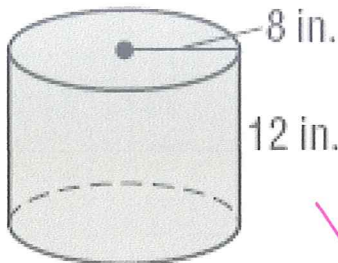
$V = \pi r^2 \cdot h$

$V = \pi 6^2 \cdot 10$

$V = 1131.0 \text{ in}^3$

V = 1131.0 in³

2.



$$SA = 2\pi r^2 + 2\pi rh$$

$$= 2\pi 8^2 + 2\pi 8 \cdot 12$$

$$SA \approx 1005.3 \text{ in}^2$$

SA = 1005.3 in²

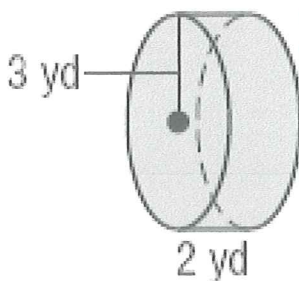
$V = (\pi r^2)h$

$V = \pi 8^2 \cdot 12$

$V = 2412.7 \text{ in}^3$

V = 2412.7 in³

3.



$$SA = 2\pi r^2 + 2\pi rh$$

$$SA = 2\pi 3^2 + 2\pi 3 \cdot 2$$

$$SA = 94.2 \text{ yd}^2$$

SA = 94.2 yd²

$V = \pi r^2 \cdot h$

$V = \pi 3^2 \cdot 2$

$V = 56.5 \text{ yd}^3$

V = 56.5 yd³