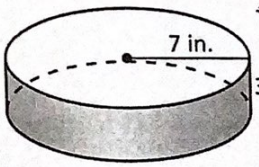
Name _____ Date _____

Lesson 8.7 Extra Practice

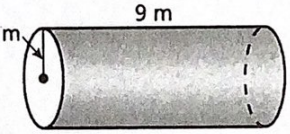
$V = \pi r^2 \cdot h$

Find the volume of the cylinder.

1. 

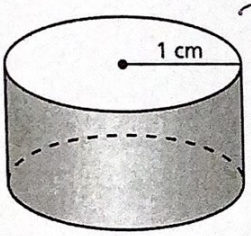
$\pi \cdot 49 \cdot 3$

$461.58 in^3$

2. 

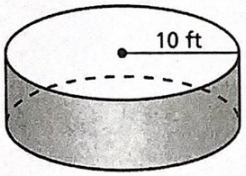
$\pi \cdot 4 \cdot 9$

$113.04 m^3$

3. 

$\pi \cdot 1 \cdot 1$

$3.14 cm^3$

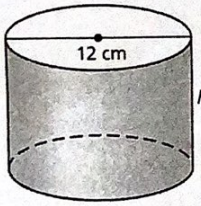
4. 

$\pi \cdot 100 \cdot 6$

$1884 ft^3$

Find the height of the cylinder.

5. Volume = 1131 cm^3



$r = 6$

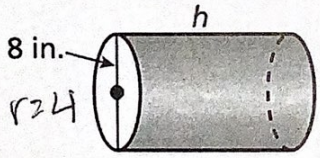
$1131 = \pi \cdot 36 \cdot h$

$1131 = 113.04 \cdot h$

$\div 113.04$

$10 = h$

6. Volume = 452 $in.^3$



$452 = \pi \cdot 16 \cdot h$

$452 = 50.24 \cdot h$

$\div 50.24$

about $9 = h$

8. A cylinder has a surface area of 339 square centimeters and a radius of 6 centimeters. Estimate the volume of the cylinder.

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

$339 = 2\pi \cdot 36 + 2\pi \cdot 6 \cdot h$

$339 = 226.08 + 37.68 \cdot h$

$112.92 = 37.68h$

$3 = h$

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

$\pi \cdot 36 \cdot 3$

$V = 339.12 cm^3$