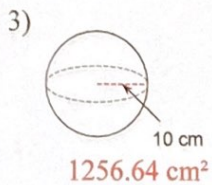
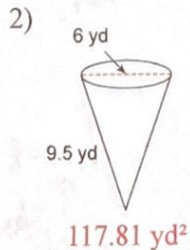
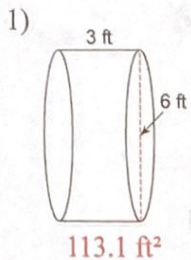
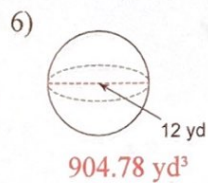
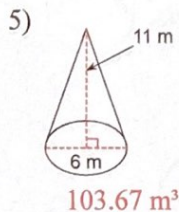
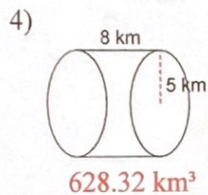


Cylinders, Spheres and Cones Examples

Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary.



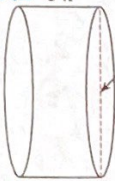
Find the volume of each figure. Round your answers to the nearest hundredth, if necessary.



Cylinders, Spheres and Cones Examples

Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary.

1) $r=3$ $h=3$ ft 6 ft = d



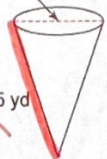
$$SA = 2\pi r^2 + 2\pi r h$$

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

Plug it into calc. w/ π key!

$SA \approx 113.10 \text{ ft}^2$

2) $r=3$ 6 yd $l=9.5$ yd



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

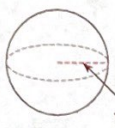
$$SA = \pi 3^2 + \pi 3 \cdot 9.5$$

Plug all in at same time w/ π key! Then press enter.

$SA \approx 117.81 \text{ yd}^2$

Called: \uparrow Slant height or Lateral height

3) 10 cm



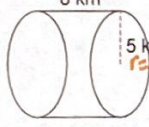
$$SA = 4\pi r^2$$

$$= 4\pi 10^2$$

$SA \approx 1256.64 \text{ cm}^2$

Find the volume of each figure. Round your answers to the nearest hundredth, if necessary.

4) $h=8$ km 5 km $r=5$

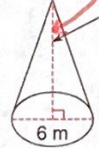


$$V = \pi r^2 \cdot h$$

$$V = \pi 5^2 \cdot 8$$

$V \approx 628.32 \text{ km}^3$

5) 11 m 6 m $r=3$



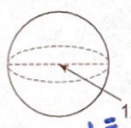
$$V = \frac{1}{3} \pi r^2 \cdot h$$

$$= \frac{1}{3} \pi 3^2 \cdot 11$$

$V \approx 103.67 \text{ m}^3$

This is the actual height

6) $d=12$ yd $r=6$ yd



$$V = \frac{4}{3} \pi r^3$$

$$V = \frac{4}{3} \pi 6^3$$

$V \approx 904.78 \text{ yd}^3$