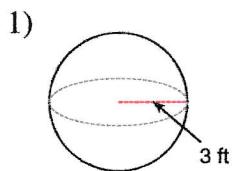


## Spheres

*J^2 area*

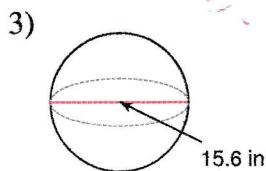
Find the surface area of each figure.



2)

A diagram of a sphere with a horizontal red diameter line. A radius line extends from the center to the right, labeled "r=6".

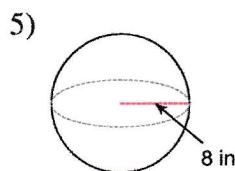
$$\begin{aligned} SA &= 4\pi r^2 \\ &= 4\pi \cdot 6^2 \\ &= 452.16 \text{ cm}^2 \end{aligned}$$



4)

A diagram of a sphere with a horizontal red diameter line. A radius line extends from the center to the right, labeled "7 cm".

$$\begin{aligned} SA &= 4\pi r^2 \\ &= 4\pi \cdot 7^2 \\ &= 615.44 \text{ cm}^2 \end{aligned}$$



6)

A diagram of a sphere with a horizontal red diameter line. A radius line extends from the center to the right, labeled "10 mi".

$$\begin{aligned} SA &= 4\pi r^2 \\ &= 4\pi \cdot 10^2 \\ &= 1256 \text{ mi}^2 \end{aligned}$$

- 7) A sphere with a diameter of 6.2 in.

- 8) A sphere with a radius of 8 mi.  $r=8$

$$\begin{aligned} &4\pi r^2 \\ &4\pi \cdot 8^2 = 803.84 \text{ mi}^2 \end{aligned}$$