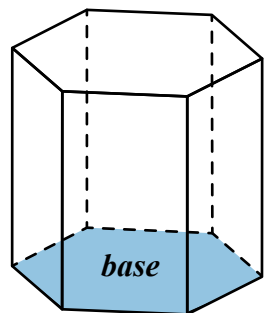


$$\text{Surface Area} = 2B + Ph$$

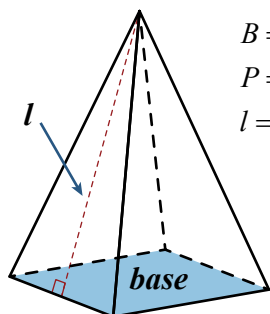


B = area of the base

P = perimeter of the base

h = height of prism

$$\text{Surface Area} = B + \frac{1}{2}Pl$$

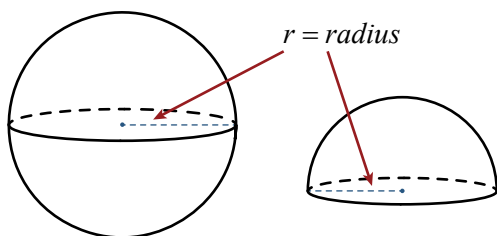


B = area of the base

P = perimeter of the base

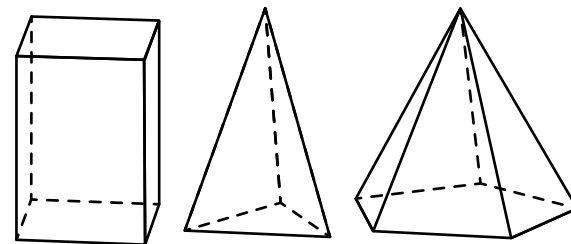
l = slant height

$$\text{Sphere: Surface Area} = 4\pi r^2$$

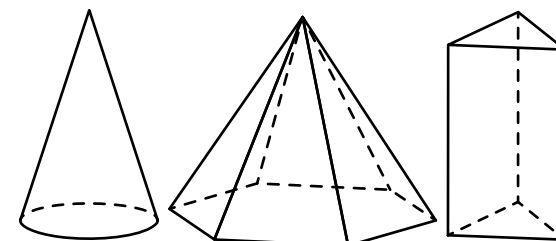


$$\text{Hemisphere: Surface Area} = 3\pi r^2$$

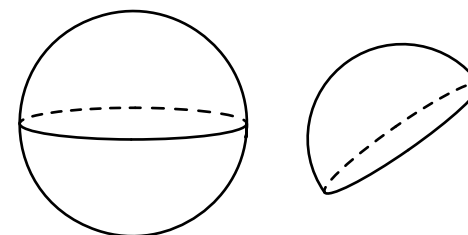
SURFACE AREA OF PRISMS



SURFACE AREA OF REGULAR PYRAMIDS



SURFACE AREA OF OTHER SOLIDS

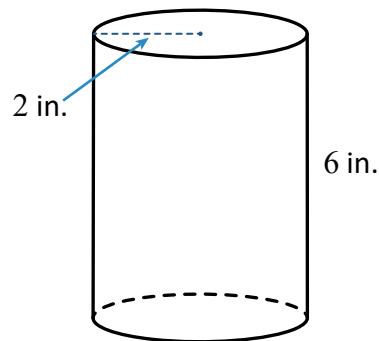


glue here

The surface area, S , of a **prism** is two times B , the area of the base, plus the area of the lateral faces.

The area of the lateral faces is P , the perimeter of the base, times the height of the prism, h .

Example:



$$S = 2B + Ph$$

$$S = 2(\pi r^2) + (2\pi r)(6)$$

$$S = 2(\pi(2)^2) + (2\pi(2))(6)$$

$$S = 8\pi + 24\pi$$

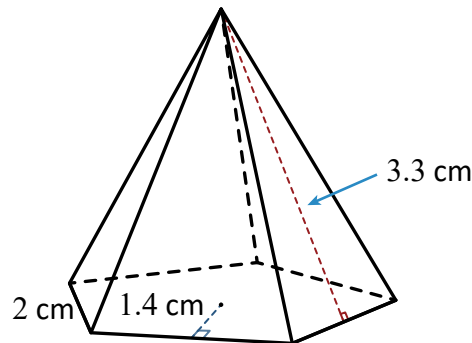
$$S = 32\pi \text{ in}^2$$

$$S \approx 100.5 \text{ in}^2$$

The surface area, S , of a **pyramid** is B , the area of the base, plus the area of the lateral faces.

The area of the lateral faces is one-half times P , the perimeter of the base, times the slant height of the pyramid, l .

Example:



$$S = B + \frac{1}{2}Pl$$

$$S = \left(\frac{1}{2} \cdot a \cdot n \cdot s\right) + \frac{1}{2}(5 \cdot 2)(3.3)$$

$$S = \left(\frac{1}{2} \cdot 1.4 \cdot 5 \cdot 2\right) + 5(3.3)$$

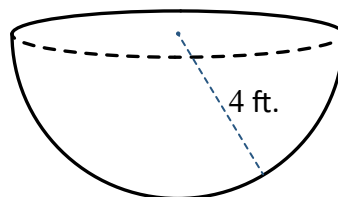
$$S = 7 + 16.5$$

$$S = 23.5 \text{ cm}^2$$

The surface area, S , of a **sphere** is the radius squared, r^2 , times 4π .

The surface area, S , of a **hemisphere** is the radius squared, r^2 , times 3π .

Example:



$$S = 3\pi r^2$$

$$S = 3\pi(4)^2$$

$$S = 48\pi \text{ ft}^2$$

$$S \approx 150.8 \text{ ft}^2$$