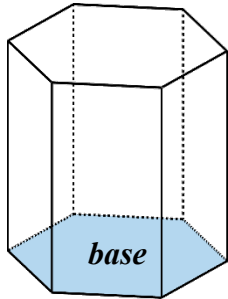
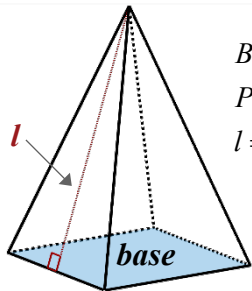


Surface Area = 2B + Ph



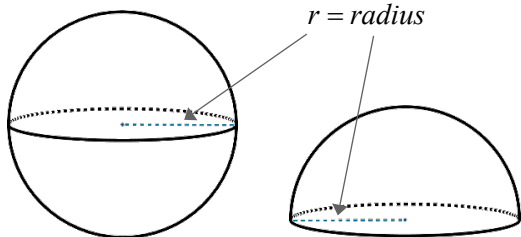
*B = area of the base
P = perimeter of the base
h = height of prism*

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



*B = area of the base
P = perimeter of the base
l = slant height*

Sphere: Surface Area = 4πr²

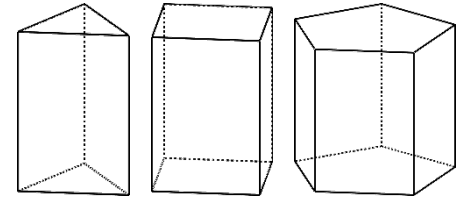


Hemisphere: Surface Area = 3πr²

glue here

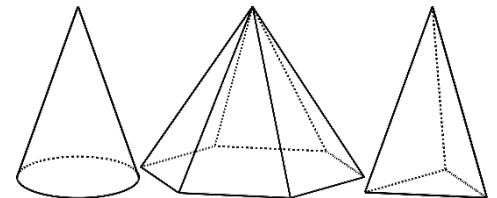
SURFACE AREA

OF PRISMS



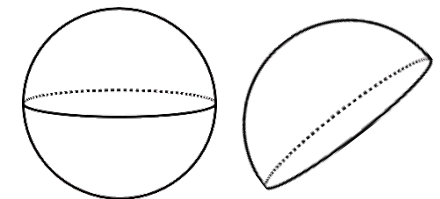
SURFACE AREA

OF REGULAR PYRAMIDS



SURFACE AREA

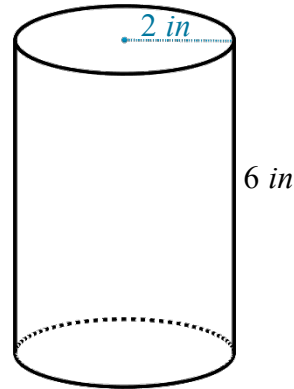
OF OTHER SOLIDS



The surface area, S , of a **prism** is the area of the base, B , times 2 plus the area of the lateral faces.

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

Example:



$$S = 2B + Ph$$

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

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

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

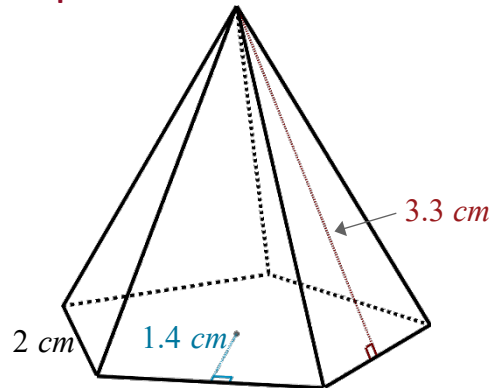
$$S = 32\pi \text{ in}^2$$

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

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

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

Example:



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

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

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

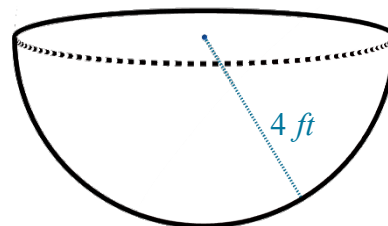
$$S = 7 + 16.5$$

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

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:



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

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

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

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