

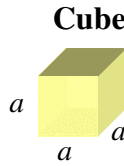
# Phys 250 / Geometry / Formulas

Surface Area

Body

Volume

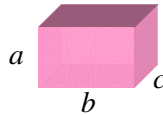
$$S_{cube} = 6a^2$$



$$V_{cube} = a^3$$

$$S_{prism} = 2ab + 2bc + 2ac$$

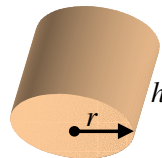
Rectangular Prism



$$V_{prism} = abc$$

$$S_{cyl} = 2\pi r^2 + 2\pi r h$$

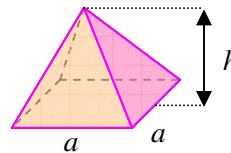
Cylinder



$$V_{cyl} = \pi r^2 h$$

$$S_{pyr-sq} = a \left( a + \sqrt{a^2 + 4h^2} \right)$$

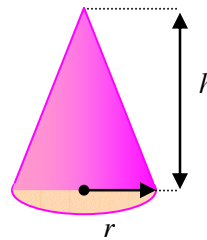
Pentahedron



$$V_{pyr-sq} = \frac{1}{3} a^2 h$$

$$S_{cone} = \pi r \left( r + \sqrt{r^2 + h^2} \right)$$

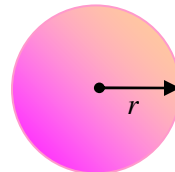
Cone



$$V_{cone} = \frac{1}{3} \pi r^2 h$$

$$S_{sphere} = 4\pi r^2$$

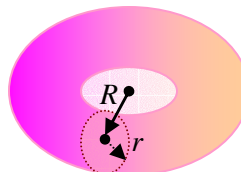
Sphere



$$V_{sphere} = \frac{4}{3} \pi r^3$$

$$S_{torus} = 4\pi^2 R r$$

Circular Torus



$$V_{torus} = 2\pi^2 R r^2$$