Some Volume Formulas

- Sphere: $V = \frac{4\pi}{3}r^3$.

- Circular cone: $V = \pi r^2 \frac{h}{3}$

- Cylinder: $V = \pi r^2 h$.

- Cube: $V = s^3$.

- Rectangular prism (box): $V = lwh$.

Trig Identities

- $\sin^2 \theta + \cos^2 \theta = 1$

- $\tan^2 \theta + 1 = \sec^2 \theta$

- $\cot^2 \theta + 1 = \csc^2 \theta$

- $\sin(2\theta) = 2\sin\theta\cos\theta$

- $\sin^2 \theta = \frac{1}{2}(1 - \cos(2\theta))$

- $\cos^2 \theta = \frac{1}{2}(1 + \cos(2\theta))$

- $\sin(a + b) = \sin(a)\cos(b) + \cos(a)\sin(b)$

- $\sin(a - b) = \sin(a)\cos(b) - \cos(a)\sin(b)$

- $\cos(a + b) = \cos(a)\cos(b) - \sin(a)\sin(b)$

- $\cos(a - b) = \cos(a)\cos(b) + \sin(a)\sin(b)$

- $\sin(a)\cos(b) = \frac{1}{2}[\sin(a - b) + \sin(a + b)]$

- $\sin(a)\sin(b) = \frac{1}{2}[\cos(a - b) - \cos(a + b)]$

- $\cos(a)\cos(b) = \frac{1}{2}[\cos(a - b) + \cos(a + b)]$