



Area =  $\pi r^2$ Circumference =  $2\pi r$ Circumference =  $\pi d$ 

# Cylinder



Volume =  $\pi r^2 h$ Surface Area =  $2\pi r^2 + 2\pi r h$ 

# Sphere



Volume =  $\frac{4}{3}\pi r^3$ Surface Area =  $4\pi r$ 

#### Formulas

DISTANCE BETWEEN TWO POINTS:

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

MID-POINT BETWEEN TWO POINTS:

$$\left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$$

SLOPE:

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

SLOPE-INTERCEPT

$$y = mx + b$$

FORM:

**POINT-SLOPE FORM:** 
$$y - y_1 = m(x - x_1)$$

# Elementary Algebra Applied Math I Reference Sheet

#### Rectangle



Area = lwPerimeter = 2l + 2w

#### Cube

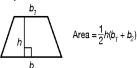


Volume =  $s^3$ Surface Area =  $6s^2$ 

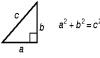
#### Parallelogram



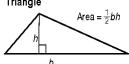
# Trapezoid



# Pythagorean Theorem



# Triangle



# Cone



Volume =  $\frac{1}{3}\pi r^2 h$ Surface Area =  $\pi r^2 + \pi r s$ 

# Rectangular Prism



Volume = *lwh* Surface Area = 2*wl* + 2*lh* + 2*wh* 

# **Right Pyramid**



Volume =  $\frac{1}{3}$  × base area × hSurface Area = base area + face areas

# Right Prism



Volume = base area × h Surface Area = base areas + face areas