Formula Sheet

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

$$y_2 - y_1 = m(x_2 - x_1)$$

$$y = mx + b$$

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

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

$$D = \sqrt{(\Delta x)^2 + (\Delta y)^2}$$

$$x^2 + y^2 = r^2$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$b^2 - 4ac$$

$$\sin A = \frac{opp}{hyp}, \cos A = \frac{adj}{hyp}, \tan A = \frac{opp}{adj}$$

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

$$\cos A = \frac{a^2 - b^2 - c^2}{-2bc}$$

$$a^2 = b^2 + c^2 - 2bc \cos A$$