

*Exponential Growth/Decay Models:*

$$Y = C (1 + r)^t$$

$$Y = C (1 - r)^t$$

*Vertex x-value:*  $x = \frac{-b}{2a}$

*Discriminant:*  $b^2 - 4ac$

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

*Percent:*  $\frac{P}{100} = \frac{\text{is}}{\text{of}}$

*Pythagorean Theorem:*  $a^2 + b^2 = c^2$

*Distance Formula:*

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

*Midpoint Formula:*  $(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2})$