COMMON FUNCTIONS

KNOW THESE FUNCTIONS BY NAME AND GRAPH!

Linear:

\[ f(x) = mx + b \]

Quadratic:

\[ f(x) = x^2 \]

Cubic:

\[ f(x) = x^3 \]

Reciprocal:

\[ f(x) = \frac{1}{x} \]

Absolute Value:

\[ f(x) = |x| \]

Square Root:

\[ f(x) = \sqrt{x} \]
Exponential: \[ y = f(x) = a^x \text{ for } a > 1 \]

Logarithm: \[ y = g(x) = \log_a x \text{ for } a > 1 \]

Sine: \[ y = f(x) = \sin x \]

Cosine: \[ y = f(x) = \cos x \]

Tangent: \[ y = f(x) = \tan x \]

Semicircle: \[ y = f(x) = \sqrt{a^2 - x^2} \]

\[ g(x) = -\sqrt{a^2 - x^2} \]