

Sinusoidal Functions

Amplitude -

$$|A|$$

Distance from midline to max. or min.

Phase Shift -

$$C$$

Horizontal shift; right if $C > 0$, left if $C < 0$

Formulas -

$$y = A \cdot \sin(B(x - C)) + D$$

$$y = A \cdot \cos(B(x - C)) + D$$

Period -

$$\frac{2\pi}{|B|}$$

Length of 1 full cycle

Vertical Shift / Midline -

$$D$$

Shifts graph vertically; up if $D > 0$, down if $D < 0$

Midline -

$$y = D$$