

Graphing Trigonometric Functions

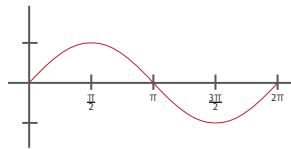
Parent Functions

Trig Functions

Sine (sin)

Amplitude: 1

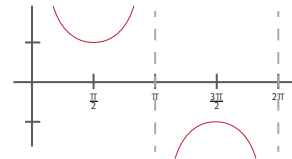
Period: 2π



Cosecant (csc)

Amplitude: N/A

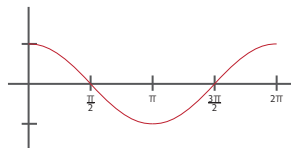
Period: 2π



Cosine (cos)

Amplitude: 1

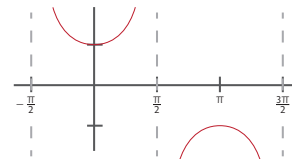
Period: 2π



Secant (sec)

Amplitude: N/A

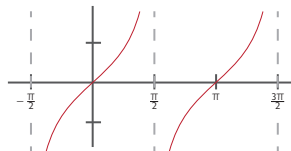
Period: 2π



Tangent (tan)

Amplitude: N/A

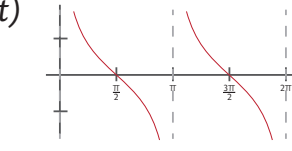
Period: π



Cotangent (cot)

Amplitude: N/A

Period: π



Transforming the Parent Functions

The traditional function transformations have slightly different interpretations when applied to trig functions.

$$f(x) = -2(\sin(-4(x - 2\pi))) + 6$$

Reflect about x-axis
Amplitude
Horizontal shift: Positive is left; negative is right
Vertical shift: Positive is up; negative is down
Sin, Tan: move minus sign to the front of function
Cos: remove it entirely
Period modifier: Divide the parent's period by this number