

**Parent Function Example Characteristics:** Graph one period of the function. For this period, determine where the graph is increasing or decreasing, Domain & Range, Max & Min, Asymptotes, odd/even/neither, and if one-to-one

Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = \sin x$								

Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = \cos x$								

Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = \csc x$								

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Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = \sec x$								

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Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = \tan x$								

Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = \cot x$								

You try.

Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = \frac{1}{2} \sin\left(\frac{\theta}{2} - \frac{2\pi}{3}\right)$								

Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = 2 \cos(3\theta) - 1$								

Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = 2 \sec \frac{\theta}{2} + 2$								

Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = 2 \csc \left( \frac{\theta}{3} - \frac{11\pi}{6} \right)$								

Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = 3 \tan \theta$								

Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One- to -One
$y = 4 \cot 2\theta$								

