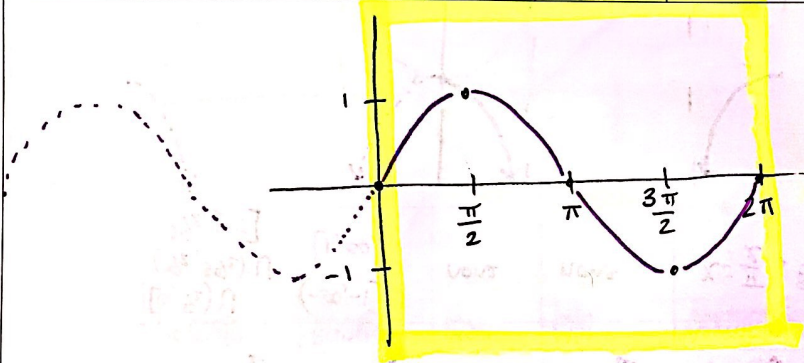
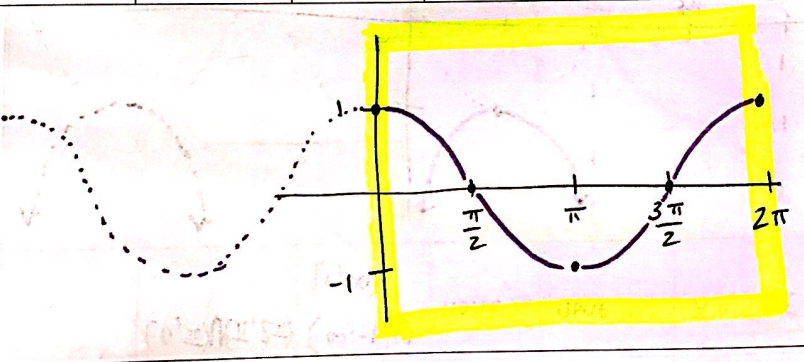


Parent Function Example Characteristics: Graph one period of the function. For this period, determine where the graph is increasing or decreasing, Domain & Range, Max & Min, Asymptotes, odd/even/neither, and if one-to-one

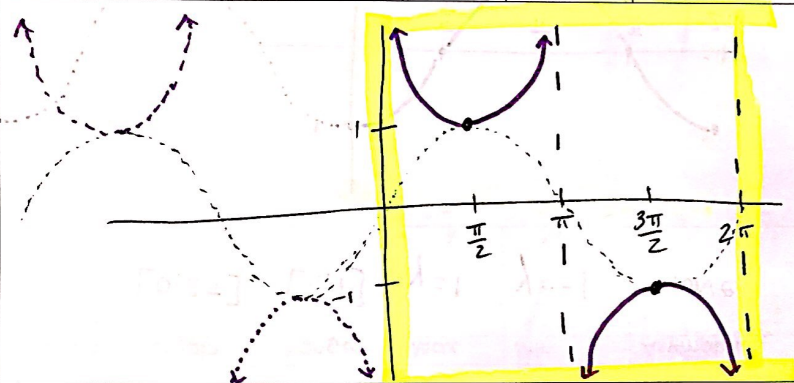
Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One-to-One
$y = \sin x$	$[0, 2\pi]$	$[-1, 1]$	$y = 1$	$y = -1$	NONE	I: $(0, \frac{\pi}{2}), (\frac{3\pi}{2}, 2\pi)$ D: $(\frac{\pi}{2}, \frac{3\pi}{2})$	odd	no



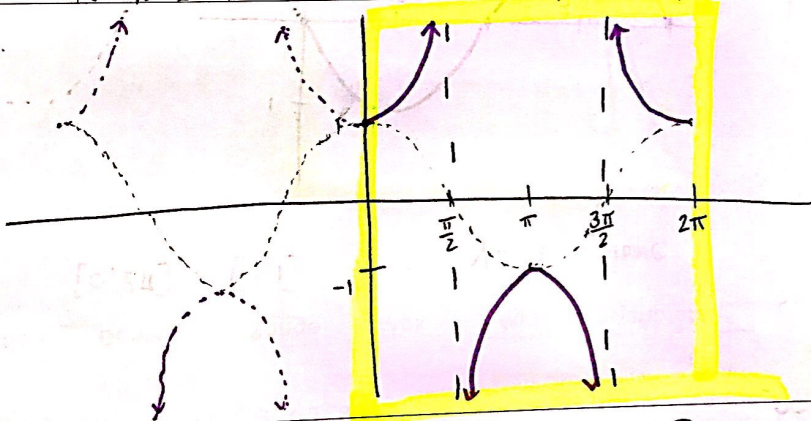
Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One-to-One
$y = \cos x$	$[0, 2\pi]$	$[-1, 1]$	$y = 1$	$y = -1$	NONE	I: $(\pi, 2\pi)$ D: $(0, \pi)$	Even	no



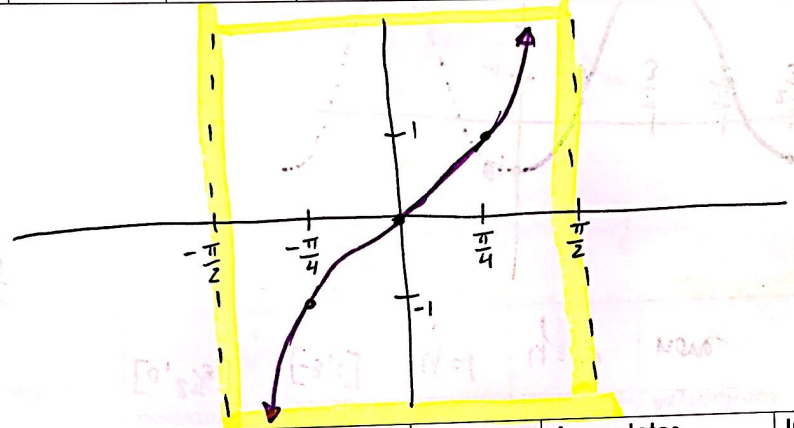
Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One-to-One
$y = \csc x$	$(0, \pi) \cup (\pi, 2\pi)$	$(-\infty, -1] \cup [1, \infty)$	none	none	$x = 0, \pi, 2\pi$	I: $(\frac{\pi}{2}, \pi) \cup (\pi, \frac{3\pi}{2})$ D: $(0, \frac{\pi}{2}) \cup (\frac{3\pi}{2}, 2\pi)$	ODD	no



Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One-to-One
$y = \sec x$	$[0, \frac{\pi}{2}) \cup (\frac{\pi}{2}, \frac{3\pi}{2}) \cup (\frac{3\pi}{2}, 2\pi]$	$(-\infty, -1] \cup [1, \infty)$	none	none	$x = \frac{\pi}{2}, \frac{3\pi}{2}$	I: $(0, \frac{\pi}{2}) \cup (\frac{\pi}{2}, \pi)$ D: $(\pi, \frac{3\pi}{2}) \cup (\frac{3\pi}{2}, 2\pi)$	Even	no



Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One-to-One
$y = \tan x$	$(-\frac{\pi}{2}, \frac{\pi}{2})$	$(-\infty, \infty)$	none	none	$x = \pm \frac{\pi}{2}$	I: $(-\frac{\pi}{2}, \frac{\pi}{2})$ D: none	odd	yes



Function	Domain	Range	Max	Min	Asymptotes	Inc./Decreasing	Odd/Even	One-to-One
$y = \cot x$	$(0, \pi)$	$(-\infty, \infty)$	none	none	$x = 0, \pi$	I: none D: $(0, \pi)$	odd	yes

