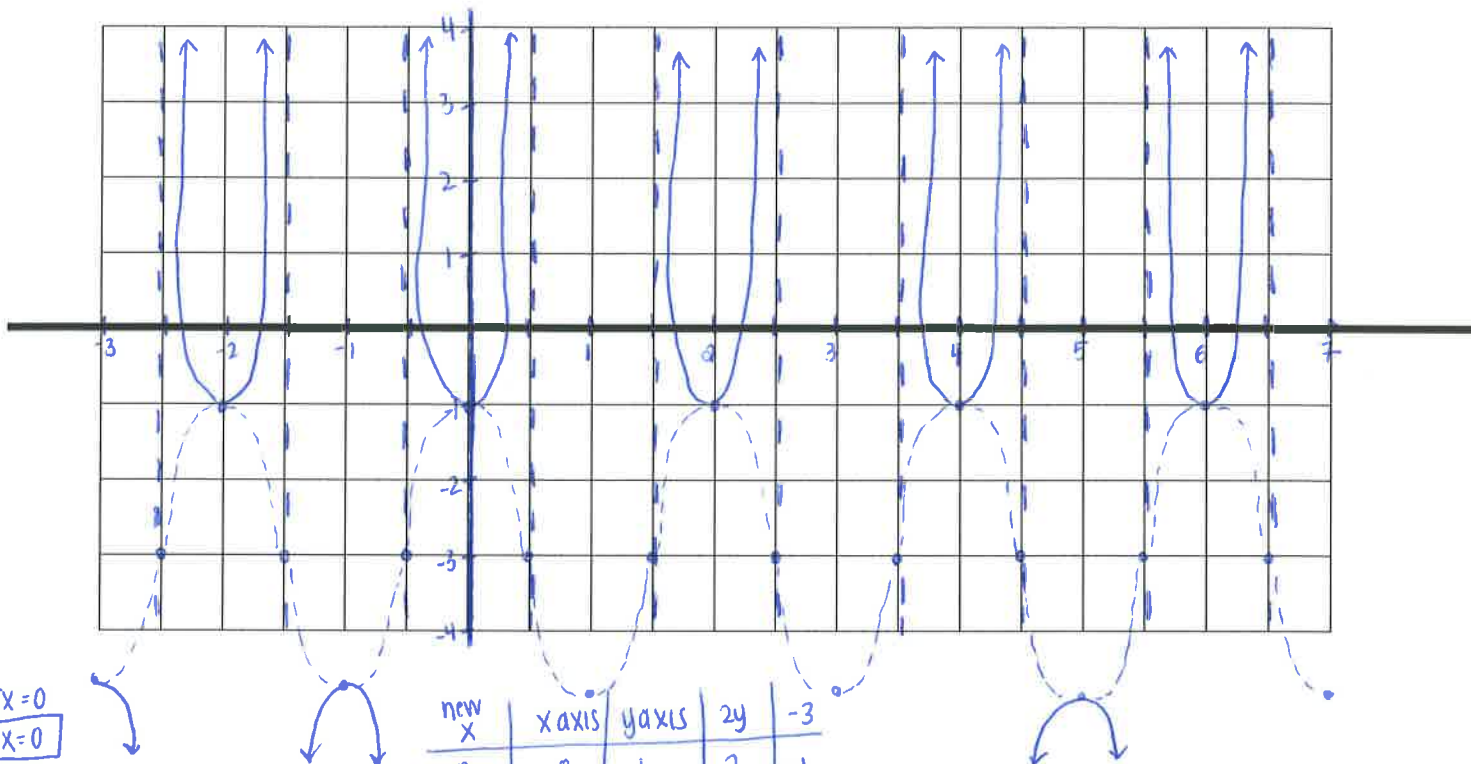


Graph the following functions.

1. $y = 2\sec(\pi x) - 3$



$\pi x = 0$
 $x = 0$

$\frac{\pi x}{1} = \frac{\pi}{2}$

$x = \frac{\pi}{2} \cdot \frac{1}{\pi}$

$x = 1/2$

$\pi x = \pi$
 $x = 1$

$\frac{\pi x}{1} = \frac{3\pi}{2}$

$x = \frac{3\pi}{2} \cdot \frac{1}{\pi}$

$x = 3/2$

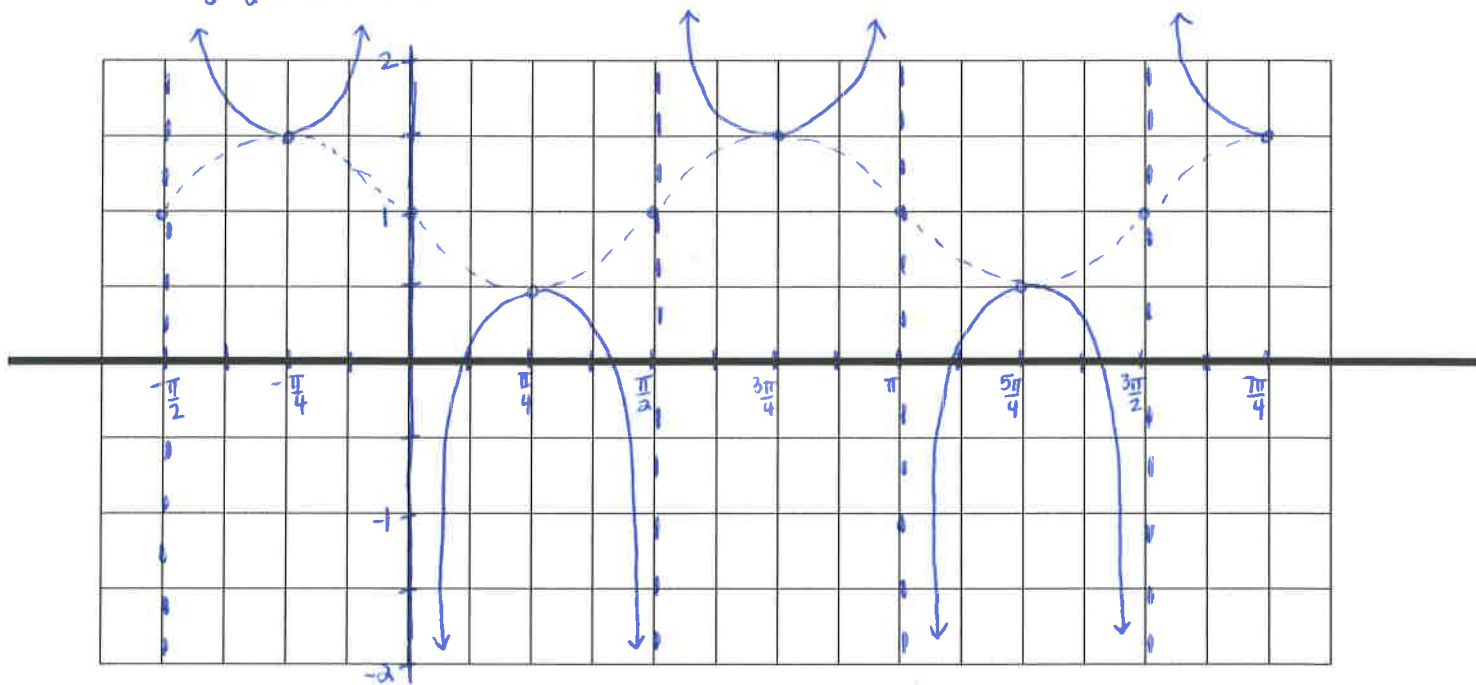
$\pi x = 2\pi$

$x = 2$

new X	X axis	Y axis	2y	-3
0	0	1	2	-1
1/2	$\pi/2$	0	0	-3 ← asymptote
1	π	-1	-2	-5
3/2	$3\pi/2$	0	0	-3 ← asymptote
2	2π	1	2	-1

2. $y = \frac{1}{2} \csc(2x - \pi) + 1$

$y = \frac{1}{2} \sin(2x - \pi) + 1$



$2x - \pi = 0$

$2x = \pi$

$x = \frac{\pi}{2}$

$2x - \pi = \pi$

$2x = \pi + \frac{2\pi}{2}$

$2x = \frac{3\pi}{2}$

$x = \frac{3\pi}{4}$

$2x - \pi = 2\pi$

$2x = 3\pi$

$x = \frac{3\pi}{2}$

$2x - \pi = 3\pi$

$2x = 3\pi + \frac{2\pi}{2}$

$2x = \frac{5\pi}{2}$

$x = \frac{5\pi}{4}$

$2x - \pi = 4\pi$

$2x = 5\pi$

$x = \frac{5\pi}{2}$

new x	x axis	y axis	$\frac{1}{2}y$	+1
$\pi/2$	0	0	0	1 ← asymptote
$3\pi/4$	$\pi/2$	1	$1/2$	1.5
π	π	0	0	1 ← asymptote
$5\pi/4$	$3\pi/2$	-1	$-1/2$	0.5
$3\pi/2$	2π	0	0	1 ← asymptote