

Graph each function

1. $f(x) = 2 \cos(x - \frac{\pi}{2}) + 1$

Amplitude: 2

Period: 2π

Vertical Shift: 1

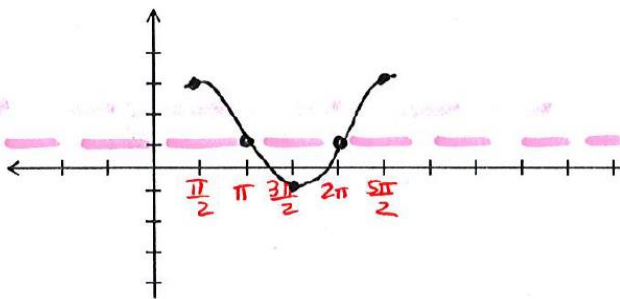
Horizontal Shift: $\frac{\pi}{2}$

Start: $\frac{\pi}{2}$

End: $5\pi/2 = 2.5\pi$

Increments: $\frac{\pi}{2}$

x	f(x)
$\frac{\pi}{2}$	3
π	1
$3\pi/2$	-1
2π	1
$5\pi/2$	3



3. $f(x) = 3 \cos(x - \pi)$

Amplitude: 3

Period: 2π

Vertical Shift: 0

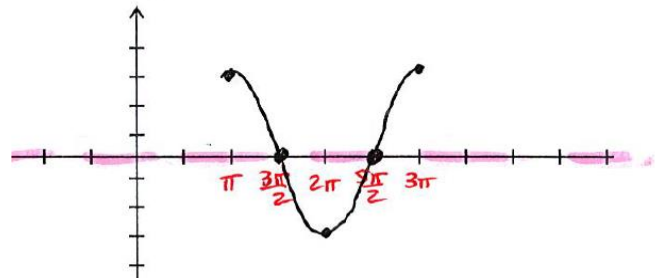
Horizontal Shift: π

Start: π

End: 3π

Increments: $\frac{\pi}{2}$

x	f(x)
π	3
$3\pi/2$	0
2π	-3
$5\pi/2$	0
3π	3



1. $f(x) = 4 \sin(2x)$

Amplitude: 4

Period: π

Vertical Shift: 0

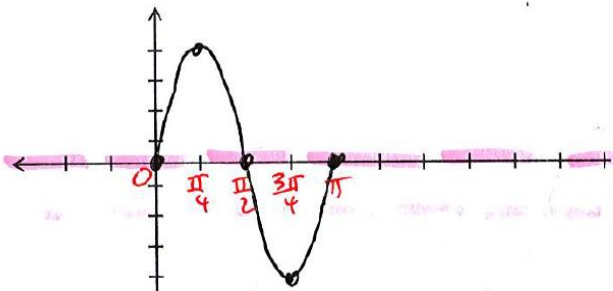
Horizontal Shift: 0

Start: 0

End: π

Increments: $\frac{\pi}{4}$

x	f(x)
0	0
$\pi/4$	4
$\pi/2$	0
$3\pi/4$	-4
π	0



3. $f(x) = \frac{1}{2} \cos(x + \frac{\pi}{3}) - 2$

Amplitude: $1/2$

Period: 2π

Vertical Shift: -2

Horizontal Shift: $-\pi/3$

Start: $-\pi/3$

End: $5\pi/3$

Increments: $\frac{\pi}{2}$

x	f(x)
$-\pi/3$	-1.5
$\pi/6$	-2
$2\pi/3$	-2.5
$7\pi/6$	-2
$5\pi/3$	-1.5

