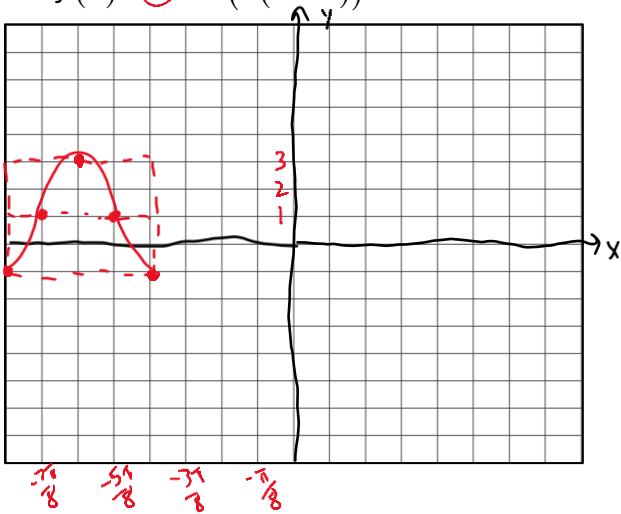


Graphing Sine & Cosine (Solution)

1. $f(x) = -2\cos(4(x+\pi))+1$



Amplitude: 2

Period: $\frac{2\pi}{4} = \frac{\pi}{2}$

Phase Shift: $-\pi$

Vertical Shift: 1

5 Main Points: _____

$(-\frac{8\pi}{8}, -1), (-\frac{7\pi}{8}, 1), (-\frac{6\pi}{8}, 3), (-\frac{5\pi}{8}, 1), (-\frac{4\pi}{8}, -1)$

2. $f(x) = -\sin(2x-\pi)-3 = -\sin(2(x-\frac{\pi}{2}))-3$



Amplitude: 1

Period: $\frac{2\pi}{2} = \pi$

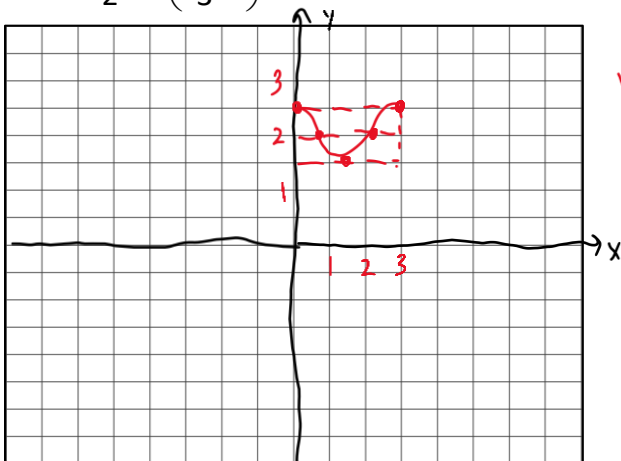
Phase Shift: $\frac{\pi}{2}$

Vertical Shift: -3

5 Main Points: _____

$(\frac{2\pi}{4}, -3), (\frac{3\pi}{4}, -4), (\frac{4\pi}{4}, -3), (\frac{5\pi}{4}, -2), (\frac{6\pi}{4}, -3)$

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



Amplitude: $\frac{1}{2}$

Period: $\frac{2\pi}{2\pi/3} = 3$

Phase Shift: 0

Vertical Shift: 2

5 Main Points: _____

$(0, 2.5), (\frac{3}{4}, 2), (\frac{6}{4}, 1.5), (\frac{9}{4}, 2), (\frac{12}{4}, 2.5)$