

$$f(\theta) = \sin\left(\frac{\theta}{3} + \frac{\pi}{12}\right)$$

Amplitude:  $|1| \rightarrow 1$

Period:  $\frac{2\pi}{1/3} \rightarrow 6\pi$

Phase Shift:  $\frac{\pi/12}{1/3} \rightarrow \frac{\pi}{4}$

Domain:  $(-\infty, \infty)$

Range:  $[-1, 1]$

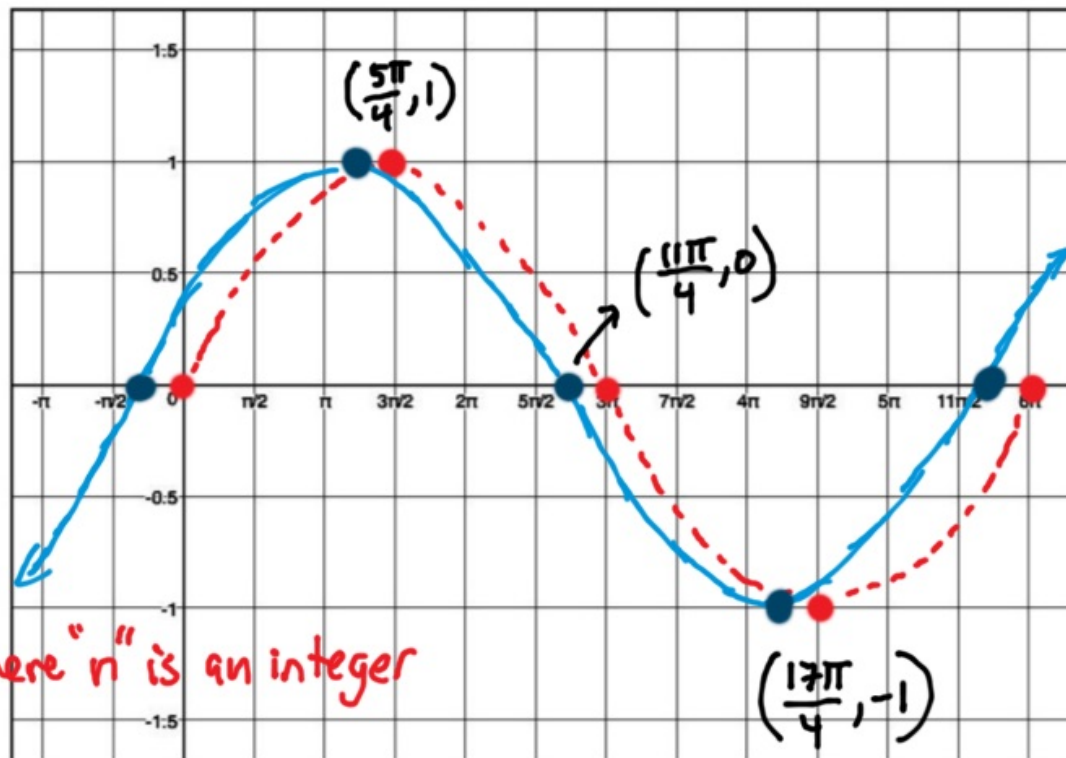
X - Intercepts:

$$x = \frac{11\pi}{4} + 3\pi n; \text{ where "n" is an integer}$$

Y- Intercept:

$$(0, .259)$$

(need calc)



X-int

$$\frac{3\pi}{1} - \frac{\pi}{4} \rightarrow \frac{12\pi - \pi}{4} \rightarrow \frac{11\pi}{4}$$

other points

$$\left[ \begin{array}{l} \frac{3\pi}{2} - \frac{\pi}{4} \rightarrow \frac{10\pi}{8} \rightarrow \frac{5\pi}{4} \\ \frac{9\pi}{2} - \frac{\pi}{4} \rightarrow \frac{34\pi}{8} \rightarrow \frac{17\pi}{4} \end{array} \right.$$

$$f(\theta) = -2\sin\left(3\theta - \frac{3\pi}{2}\right)$$

Amplitude:  $|-2| \rightarrow 2$

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

Phase Shift:  $\frac{3\pi/2}{3} \rightarrow \frac{\pi}{2}$

Domain:  $(-\infty, \infty)$

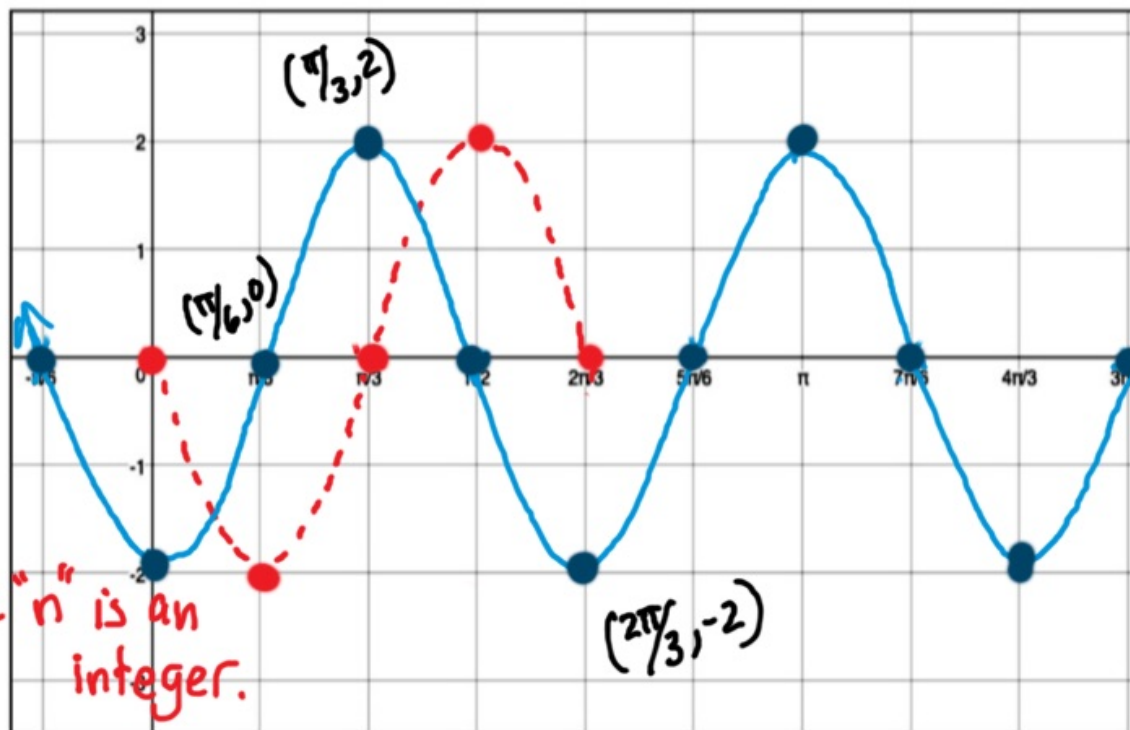
Range:  $[-2, 2]$

X - Intercepts:

$x = \frac{\pi}{6} + \frac{\pi}{3}n$ ; where "n" is an integer.

Y- Intercept:

$(0, -2)$



$$f(\theta) = 5 \sin\left(\frac{\pi}{5}\theta - \frac{3\pi}{5}\right)$$

Amplitude:  $|5| \rightarrow 5$

Period:  $\frac{2\pi}{\pi/5} \rightarrow 10$

Phase Shift:  $\frac{3\pi/5}{\pi/5} \rightarrow 3$

Domain:  $(-\infty, \infty)$

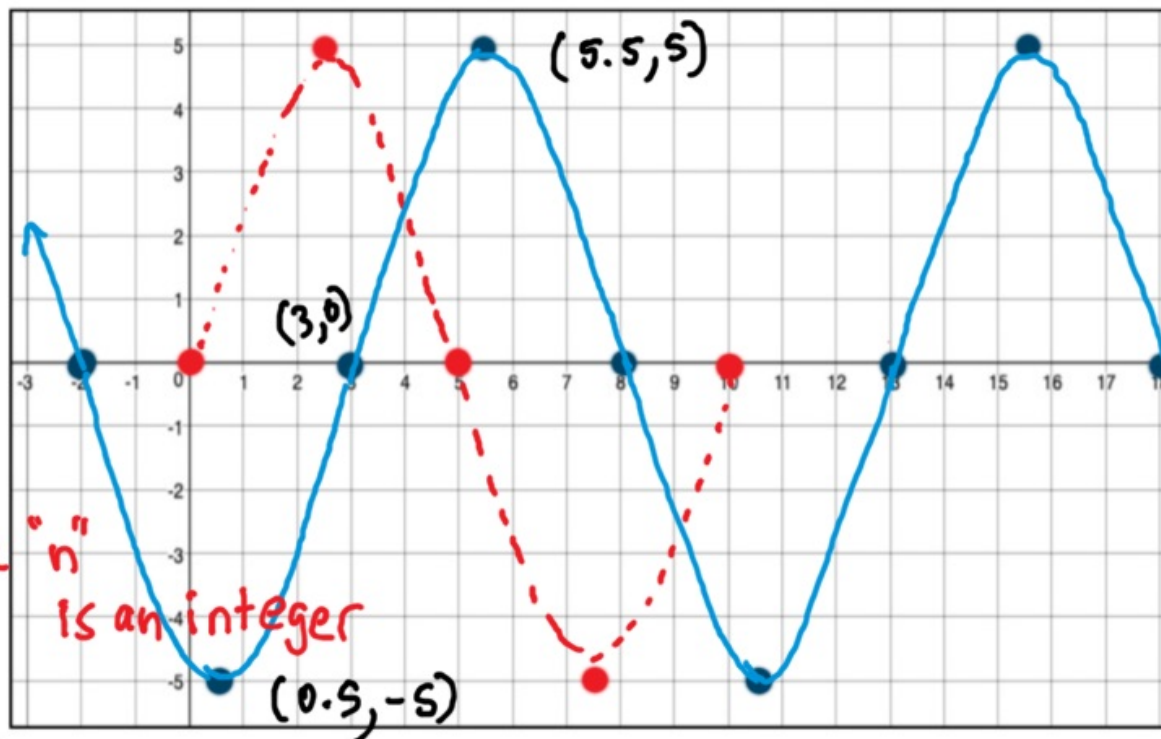
Range:  $[-5, 5]$

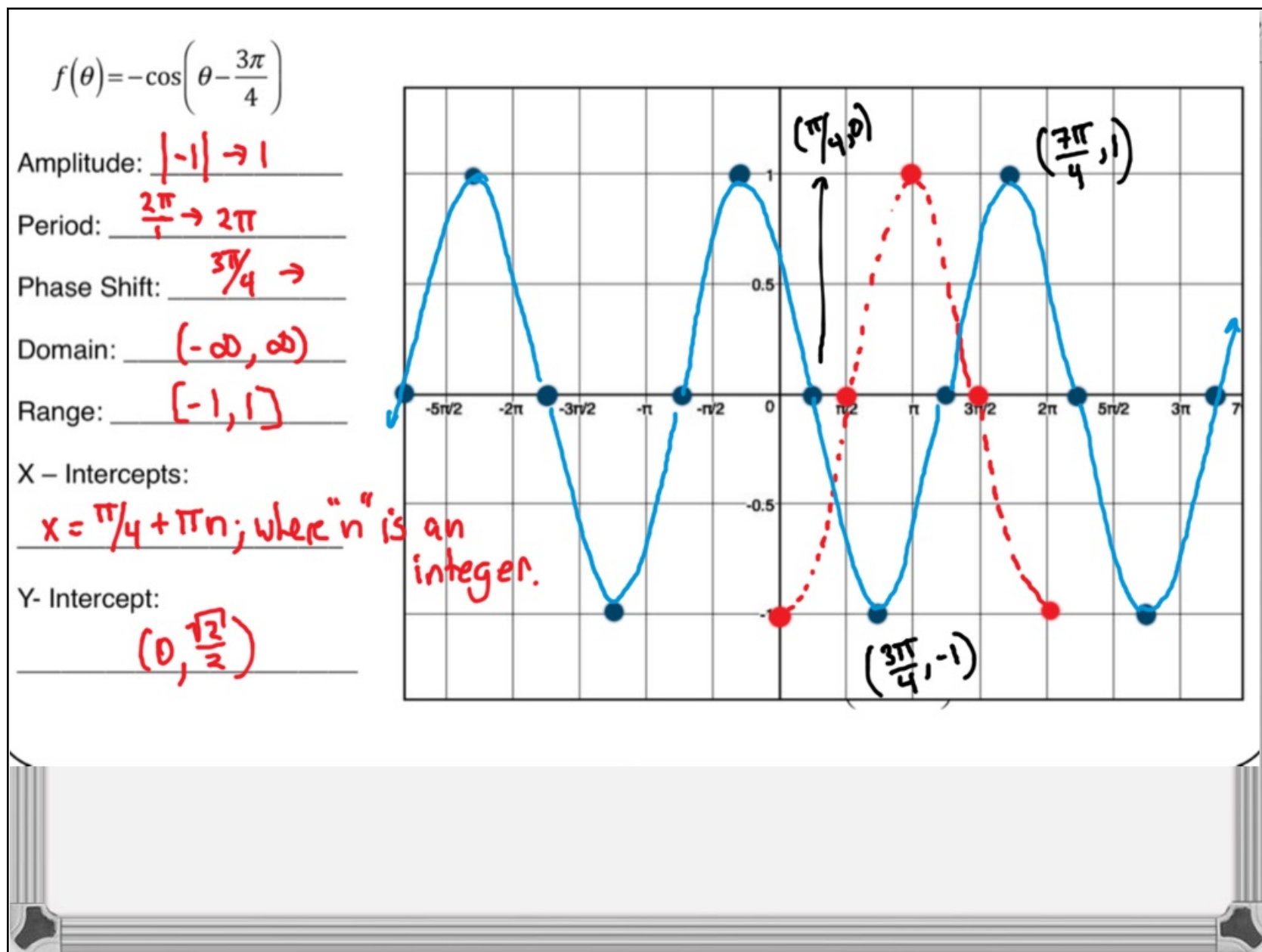
X - Intercepts:

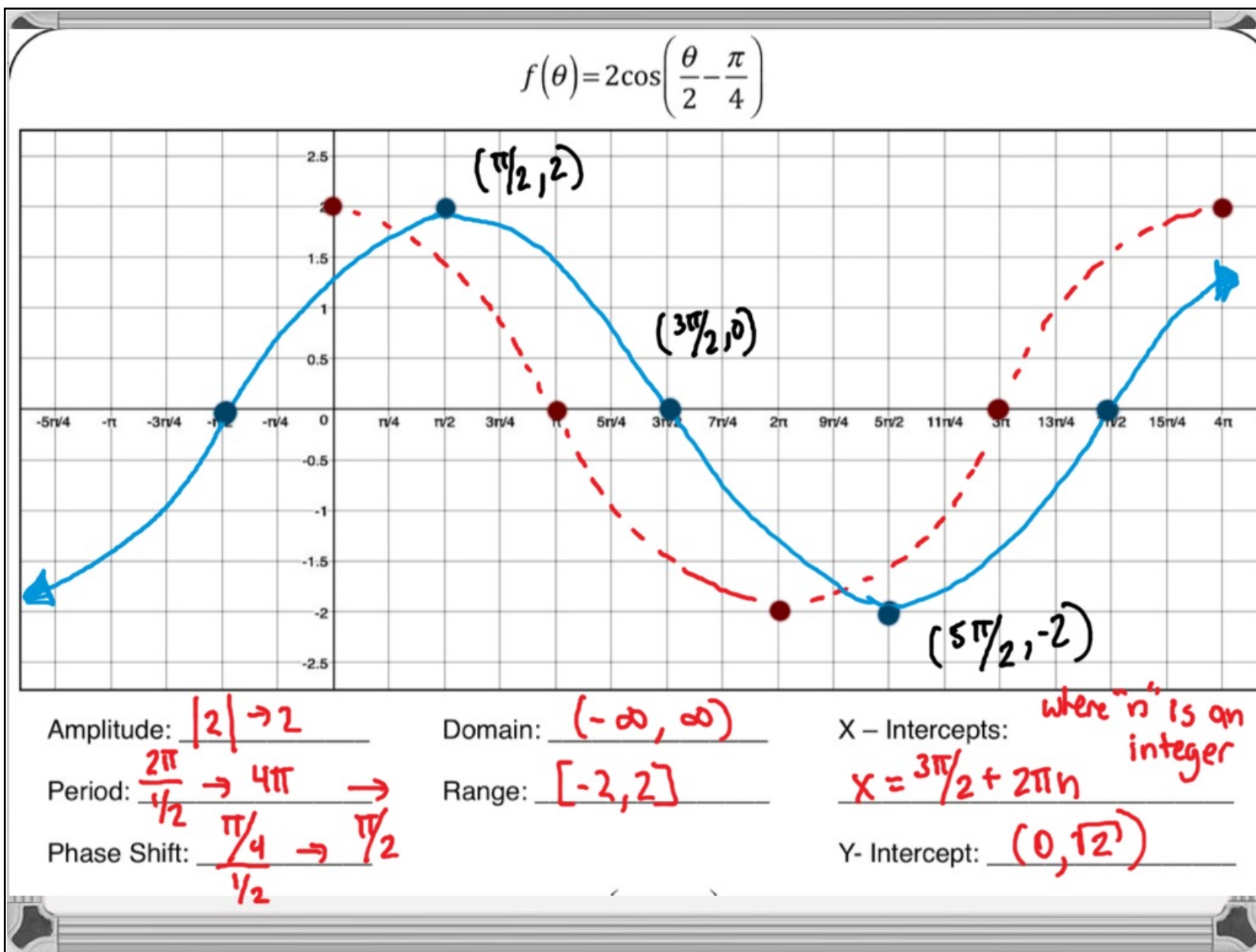
$X = 3 + 5n$  where "n" is an integer

Y- Intercept:

$(0, -4.755)$   
(need calc)







$$f(\theta) = 2\cos\left(\pi\theta + \frac{\pi}{4}\right)$$

Amplitude:  $|2| \rightarrow 2$

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

Phase Shift:  $\frac{\pi}{4} \rightarrow \frac{1}{4}$

Domain:  $(-\infty, \infty)$

Range:  $[-2, 2]$

X - Intercepts:  
 $x = \frac{1}{4} + n$ ; where "n" is an integer.

Y- Intercept:  
 $(0, \sqrt{2})$

