

$$y = 3 \cos(2(x + \pi)) - 1$$

b-value

$$a = 3 \quad \text{3 spaces max \& min}$$

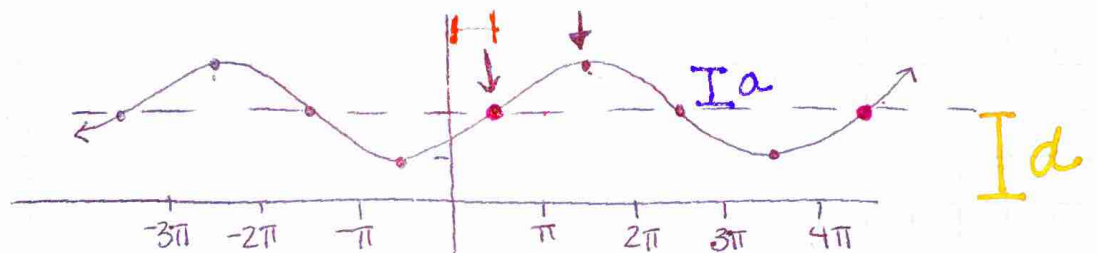
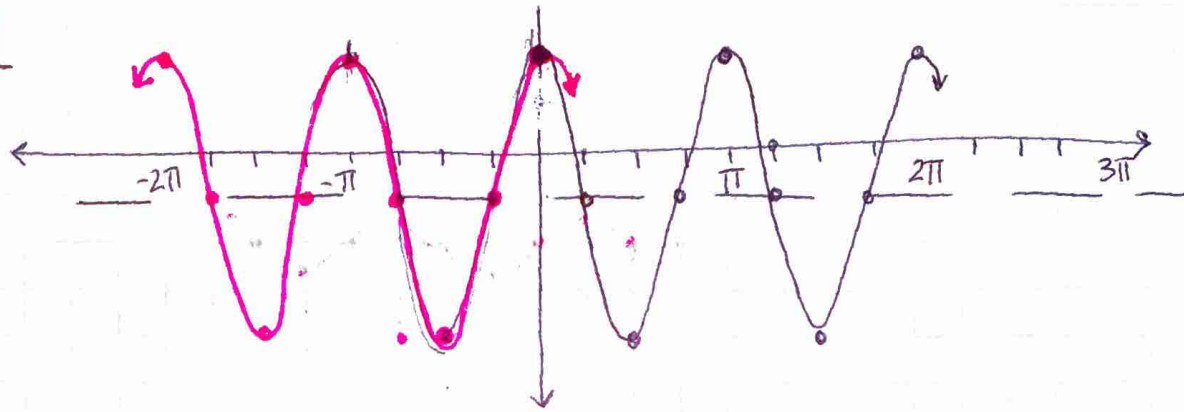
$$b = 2 \rightarrow \frac{2\pi}{2} = \pi \quad \& \quad k.p. = \frac{\pi}{4}$$

List

①  $\frac{2\pi}{b} = \text{period OR } \frac{360}{b}$

②  $\frac{\text{period}}{4}$

c: Lπ  
d: D1



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

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

$$a = 1$$

$$d = 2 \text{ U2}$$

$$\text{period} = 4\pi$$

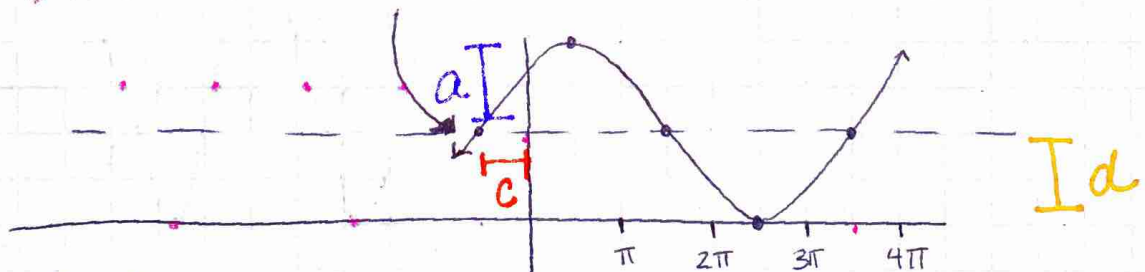
$$\frac{4\pi}{1} = \frac{2\pi}{b}$$

$$\frac{4\pi b}{4\pi} = \frac{2\pi}{4\pi}$$

$$b = \frac{1}{2}$$

c: Rπ/2

Notes



$$a = 2$$

$$d = 2 \text{ U2}$$

$$c = L\pi/2$$

$$\frac{4\pi}{1} = \frac{2\pi}{b}$$

$$\frac{4\pi b}{4\pi} = \frac{2\pi}{4\pi}$$

$$b = \frac{1}{2}$$

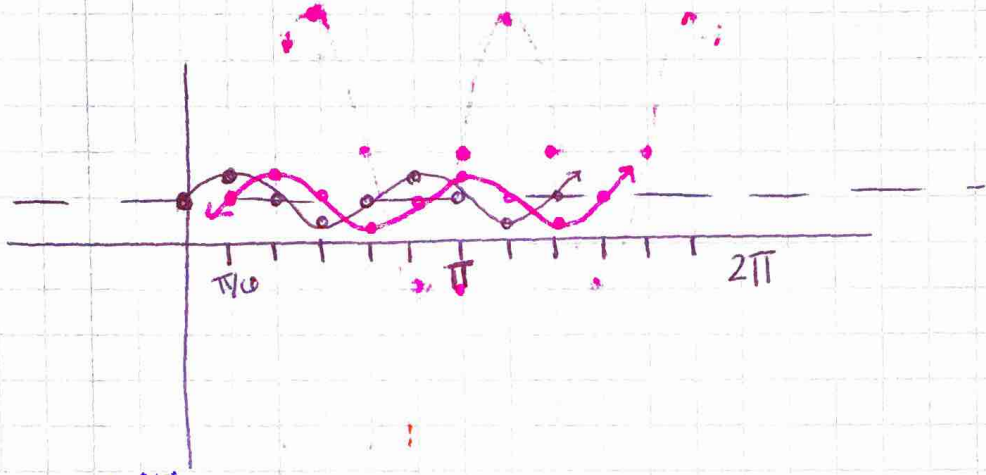
$$y = 2 \sin\left(\frac{1}{2}(x + \frac{\pi}{2})\right) + 2$$

$$y = \frac{1}{2} \sin(3(x - \frac{\pi}{6})) + 1$$

$$a = \frac{1}{2}$$

$$b = 3 \rightarrow \frac{2\pi}{3} \text{ period} \rightarrow \frac{2\pi}{3} \div \frac{4}{1} = \frac{2\pi}{3} \cdot \frac{1}{4} = \frac{\pi}{6}$$

U1, R  $\frac{\pi}{6}$



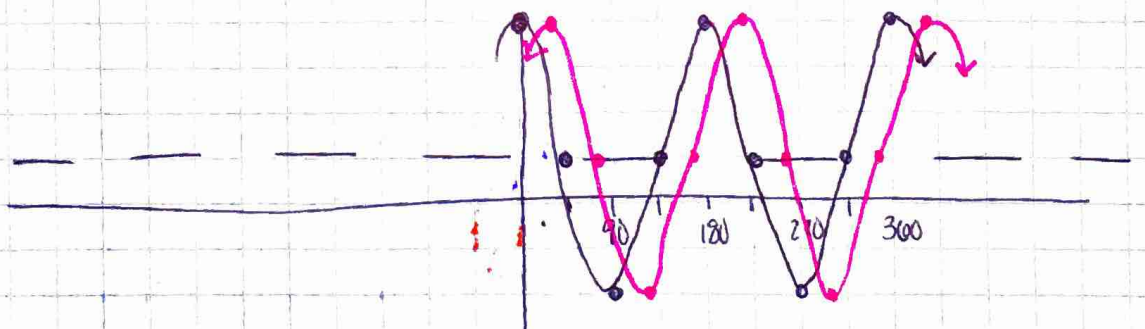
$$y = 3 \cos(2(x - 30^\circ)) + 1$$

$$a = 3 \text{ amp.}$$

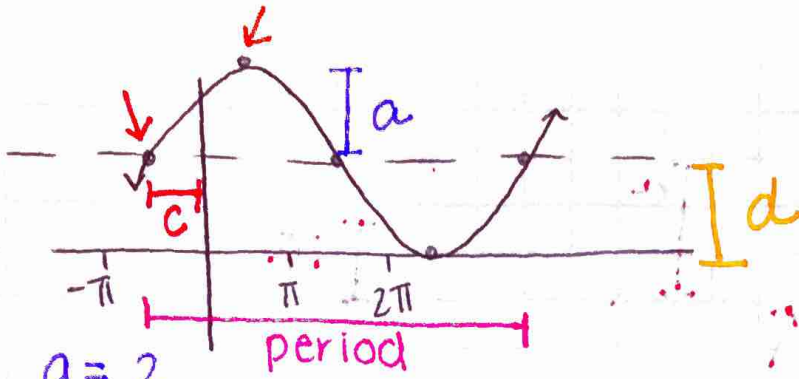
$$b = 2 \rightarrow \frac{360}{2} = 180^\circ$$

$$\text{Key points} = \frac{180}{4} = 45^\circ$$

R  $30^\circ$ , U1



list,



$a = 2$

$d = 2 \text{ u2}$

period =  $4\pi \rightarrow \frac{4\pi}{1} = \frac{2\pi}{b}$

$c: L \pi/2$

$c: R \pi/2$

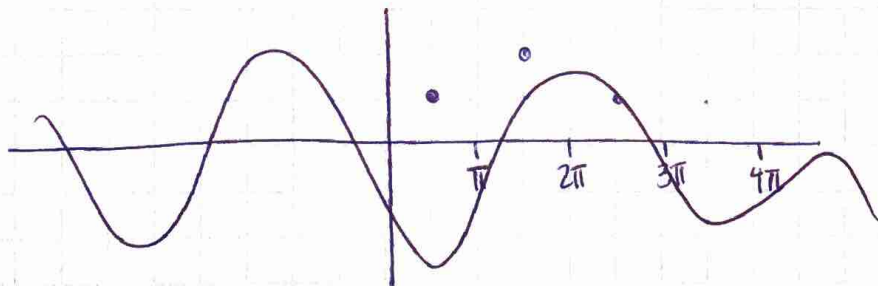
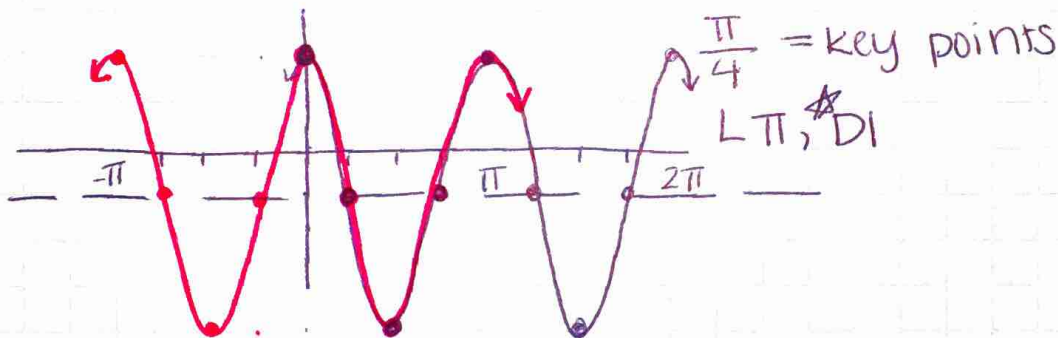
$\frac{4\pi b}{4\pi} = \frac{2\pi}{4\pi}$

$b = 1/2$

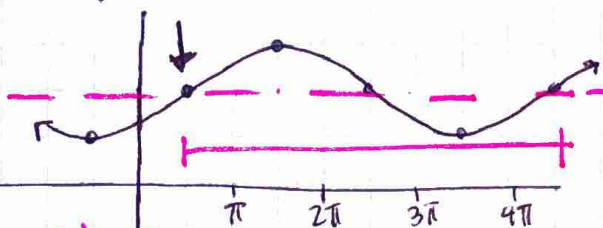
$y = 2 \sin(1/2(x + \pi/2)) + 2$

$y = 2 \cos(1/2(x - \pi/2)) + 2$

1.  $y = 3 \cos(2(x + \pi)) - 1$   $a = 3 \text{ amp.}$   
 $b = 2 \rightarrow \frac{2\pi}{2} = \pi$



$2\pi$



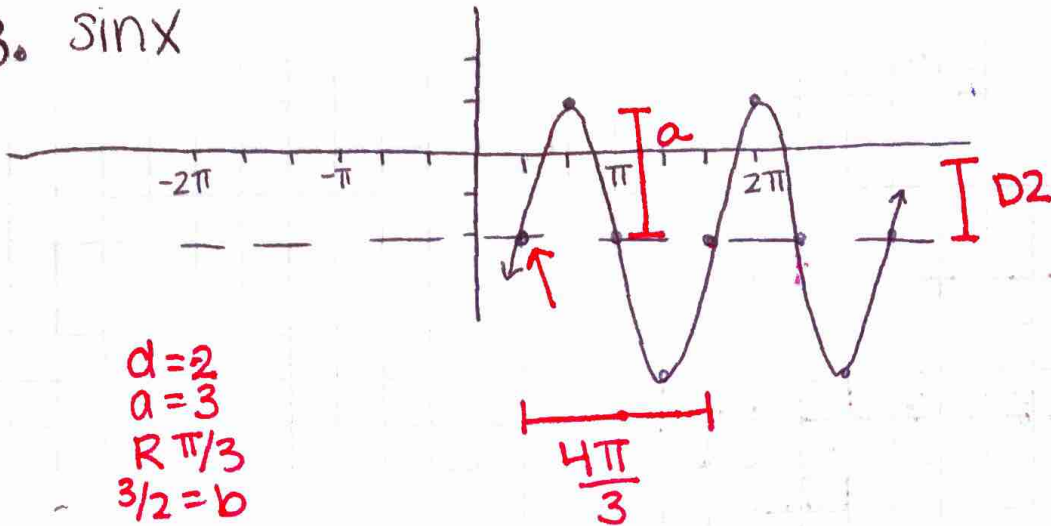
$a = 1$   
 $d = 2 \text{ u2}$   
 $R \pi/2$

$y = 1 \sin(1/2(x - \pi/2)) + 2$

period  $\frac{4\pi}{1} = \frac{2\pi}{b}$   $b = 1/2$



3.  $\sin x$



$$\begin{aligned}d &= 2 \\a &= 3 \\R &= \pi/3 \\3/2 &= b\end{aligned}$$

$$y = 3 \sin\left(\frac{3}{2} \left(x - \frac{\pi}{3}\right)\right) - 2 \quad \frac{4\pi}{3} = \frac{2\pi}{b}$$

$$\begin{aligned}\frac{6\pi}{4\pi} &= \frac{4\pi b}{4\pi} \\3/2 &= b\end{aligned}$$

