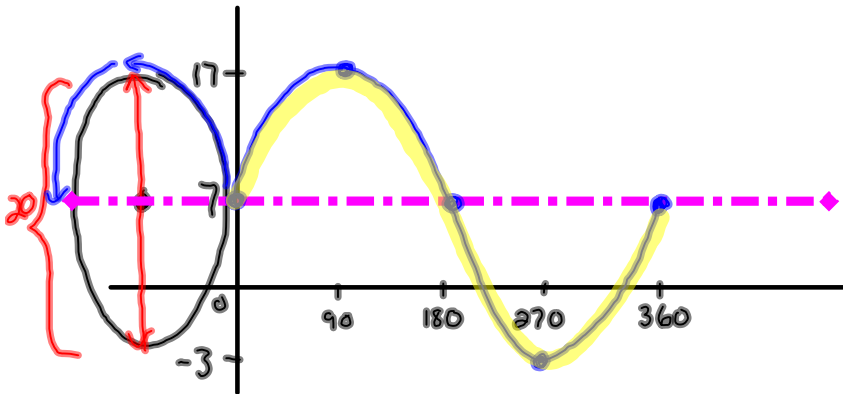


③



a)  $A = 10$

e) local max = 17

b)  $P = 360$

f) local min = -3

c)  $k = 1$

g)  $y = 10 \sin(x) + 7$

d)  $D = 7$

i) i)  $y = 10 \sin(40) + 7$   
 $= 13.42 \text{ m}$

ii)  $y = 10 \sin(110) + 7$   
 $= 16.4 \text{ m}$

j)  $y = 10 \sin(x) + 7$

$11 = 10 \sin(x) + 7$

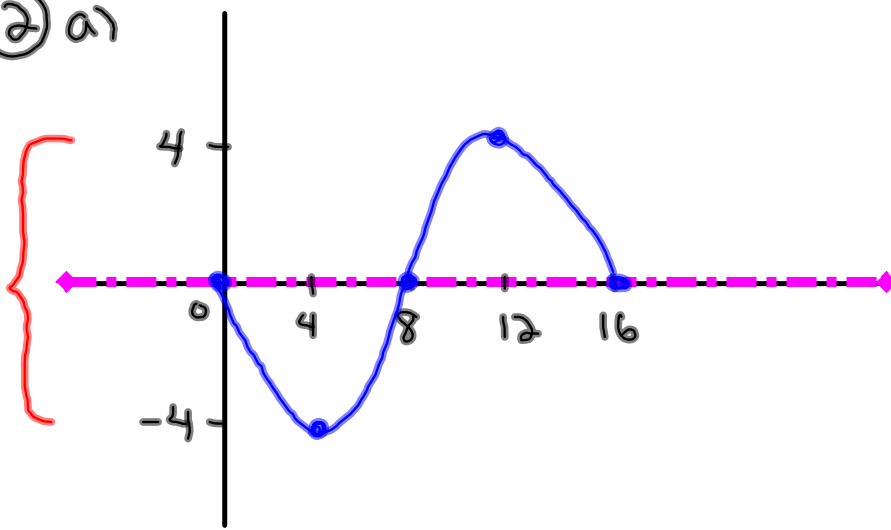
$\frac{4}{10} = \frac{10 \sin(x)}{10}$

\*  $0.4 = \sin(x)$  \*

$\sin^{-1}(0.4) = x$

$23.6^\circ = x$

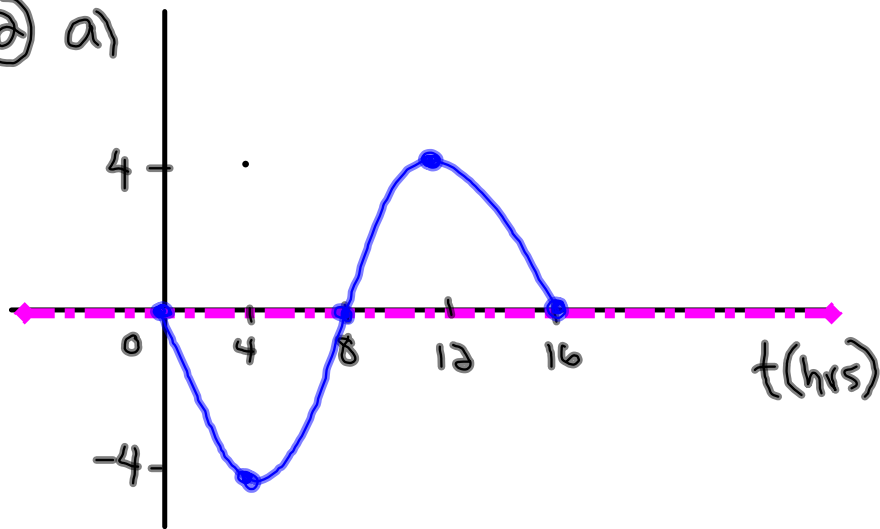
② a)



$$\begin{aligned} P &= 16 \\ K &= 22.5 \\ A &= 4 \\ D &= 0 \\ C &= 0 \end{aligned}$$

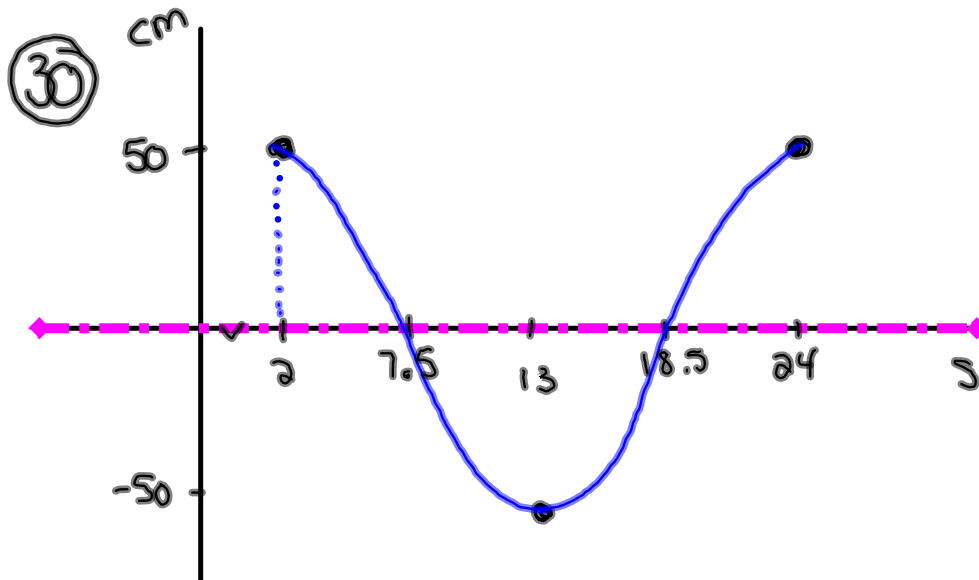
$$b) y = -4 \sin[22.5(x)]$$

② a)



$$\begin{aligned} P &= 16 \\ k &= 22.5 \\ A &= 4 \\ D &= 0 \\ C &= 0 \end{aligned}$$

$$b) y = -4 \sin[22.5(x)]$$



$$P = 22$$

$$K = 16.36$$

$$A = 50$$

$$D = 0$$

$$C = 2$$

$$y = 50 \cos[16.36(x - 2)]$$

b)  $0.3 \times 50 = 15$  (New Amp)

$$y = 15 \cos[16.36(x - 2)]$$