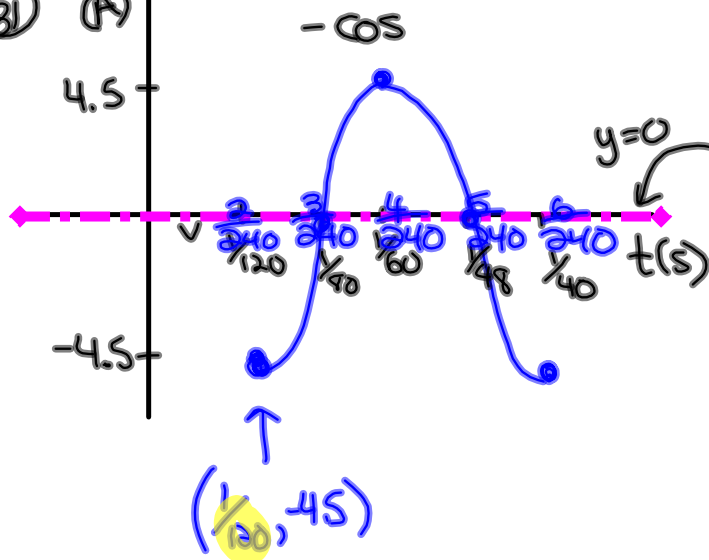


③) Current (A)



max = 4.5
min = -4.5

y = 0 → D = 0

A = 4.5

C = $\frac{1}{120}$

P = $\frac{1}{60}$

K = $\frac{360}{\frac{1}{60}} = 360 \times 60$

K = 21600

Half Period = $\frac{1}{60} - \frac{1}{120}$

= $\frac{2-1}{120}$

= $\frac{1}{120}$

Full Period = $\frac{1}{120} \cdot \frac{2}{1}$

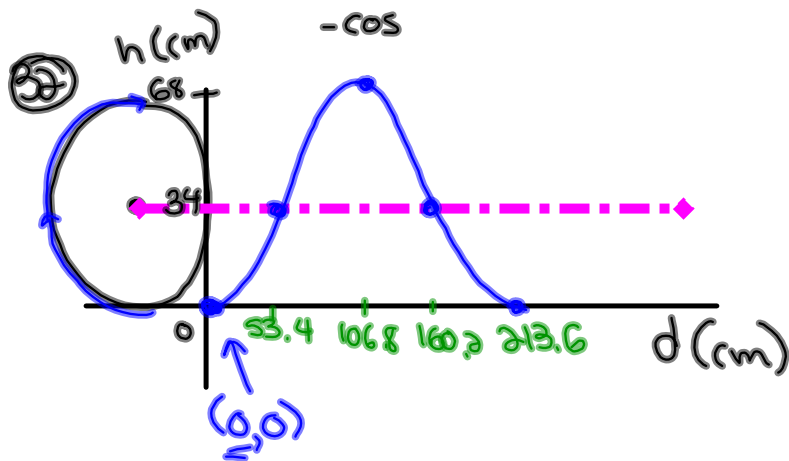
= $\frac{2}{120}$

= $\frac{1}{60}$

a) $y = -4.5 \cos\left[21600\left(x - \frac{1}{120}\right)\right]$

b) $y = -4.5 \cos\left[21600\left(4 - \frac{1}{120}\right)\right]$

y = 4.5 A



$$\text{min} = 0$$

$$\text{max} = 68$$

$$D = 34$$

$$A = 34$$

$$C = 0$$

$$P = 213.63 \text{ cm}$$

$$k = 1.685$$

* To Find Period

Find Circumference

$$C = \pi d$$

$$= \pi(68)$$

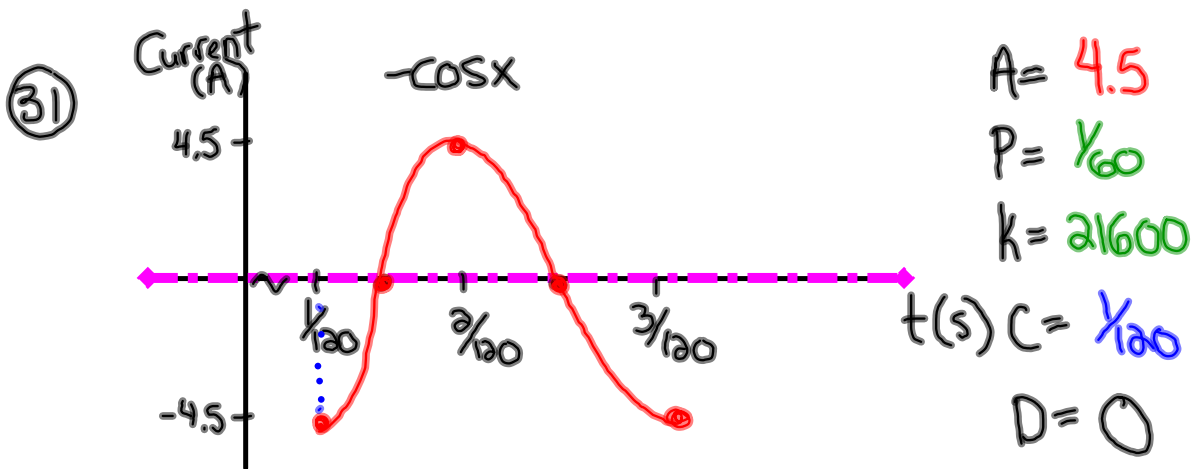
$$= 213.63$$

$$a) y = -34 \cos[1.685(x)] + 34$$

$$b) y = -34 \cos[1.685(150)] + 34$$

$$y = 44.08 \text{ cm}$$

Questions from Homework



$$y = -4.5 \cos \left[21600 \left(x - \frac{1}{120} \right) \right]$$

$$y = -4.5 \cos \left[21600 \left(4 - \frac{1}{120} \right) \right]$$

$$y = 4.5$$

$$\begin{aligned}
 \textcircled{32} \quad \text{Period} &= \text{Circumference} \\
 &= \pi d \\
 &= \pi (68) \\
 &= 213.64 \text{ cm}
 \end{aligned}$$

$$\begin{aligned}
 P &= 213.64 \\
 K &= 1.685
 \end{aligned}$$

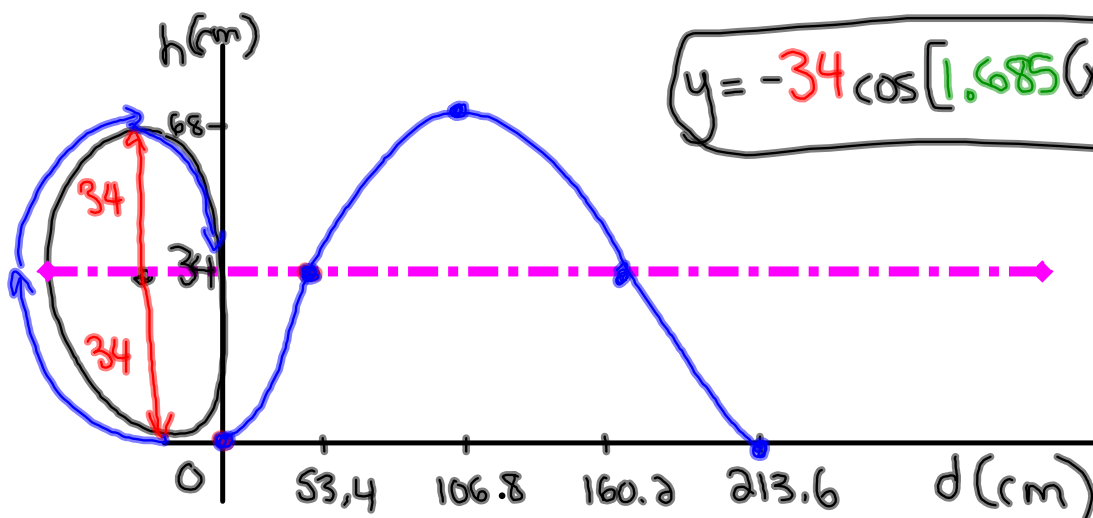
$$A = 34$$

$$\text{local min} = 0$$

$$\text{local max} = 68$$

$$D = 34$$

$$C = 0$$



$$y = -34 \cos[1.685(x)] + 34$$

$$\begin{aligned}
 \text{(ii)} \quad y &= -34 \cos[1.685(150)] + 34 \\
 &= 44.08 \text{ cm}
 \end{aligned}$$

Graph the following equation! $(x,y) \rightarrow (\frac{x}{k} + C, Ay + D)$

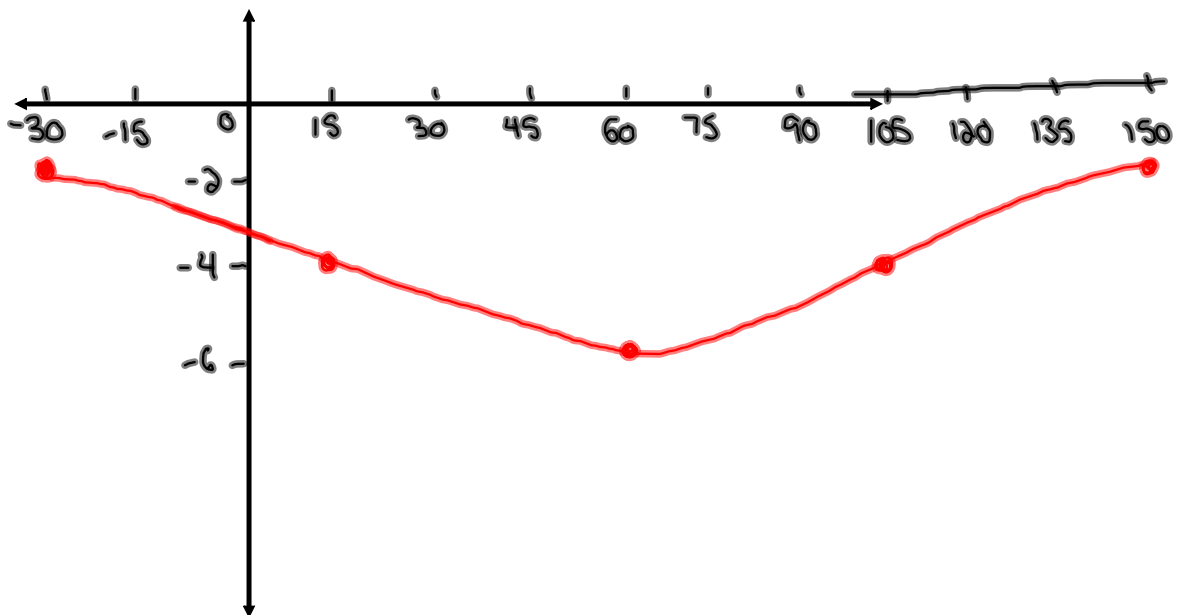
$$\begin{aligned} \cdot \frac{2(y+3)}{2} &= \frac{4 \cos[2(x+30)] - 2}{2} \\ \cdot y+3 &= 2 \cos[2(x+30)] - 1 \\ y &= 2 \cos[2(x+30)] - 4 \end{aligned}$$

$$\begin{aligned} A &= 2 & C &= -30 \\ k &= 2 & D &= -4 \\ p &= 180 \end{aligned}$$

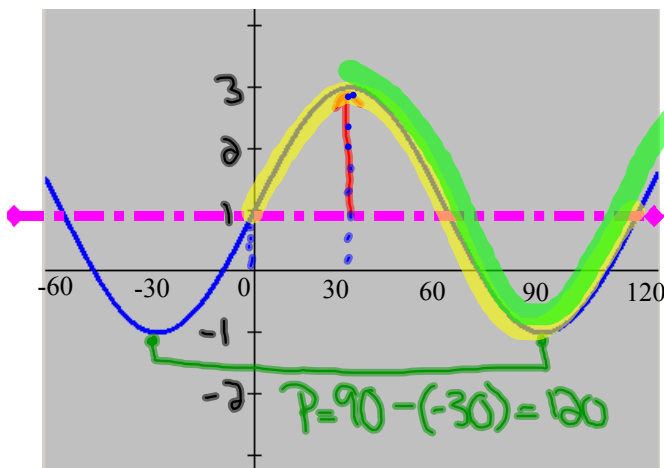
$$y = \cos x$$

x	y
0	1
90	0
180	-1
270	0
360	1

x	y
-30	-2
15	-4
60	-6
105	-4
150	-2



Find 2 equations to represent the following graph:



$$A = 2$$

$$P = 120$$

$$k = 3$$

$$D = 1$$

$$+ \sin (C = 0)$$

$$y = 2 \sin [3(x)] + 1$$

$$+ \cos (C = 30)$$

$$y = 2 \cos [3(x - 30)] + 1$$