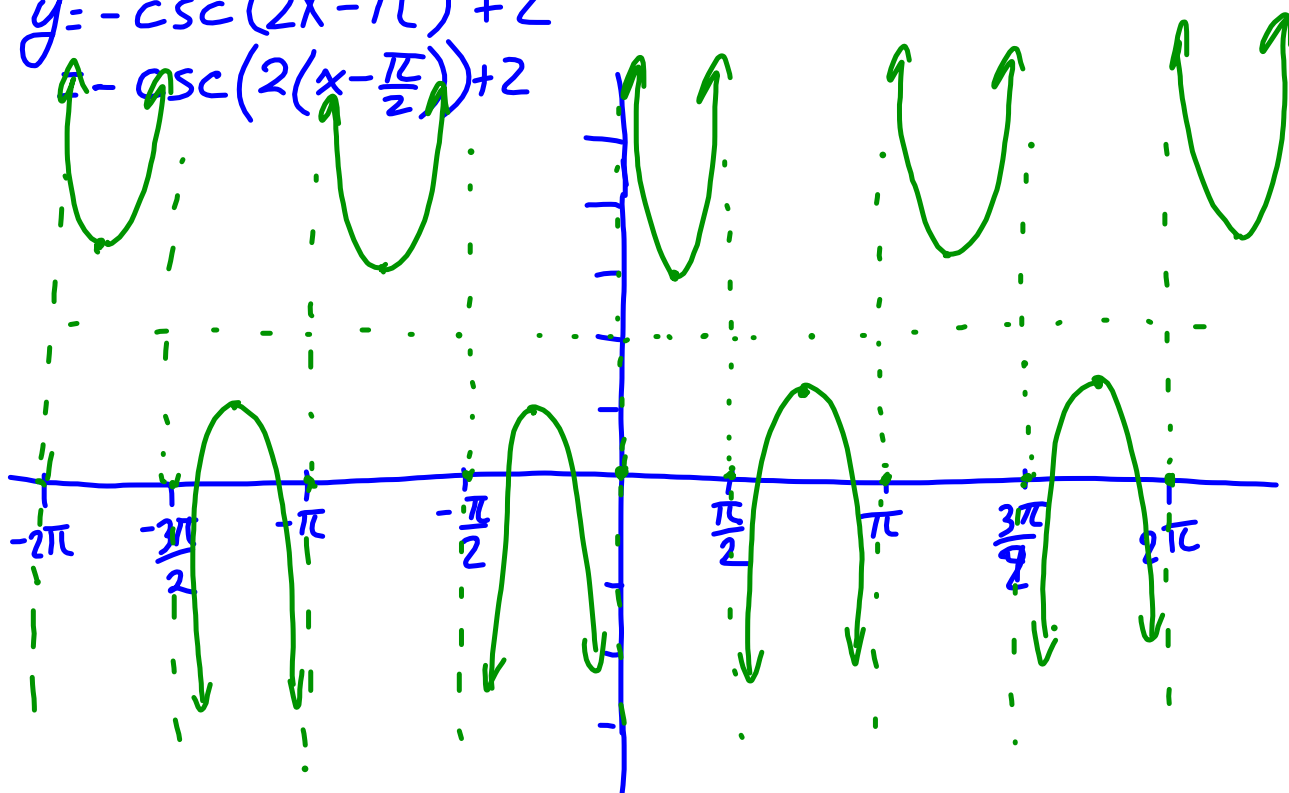


$$y = -\csc(2x - \pi) + 2$$

$$y = -\csc(2(x - \frac{\pi}{2})) + 2$$



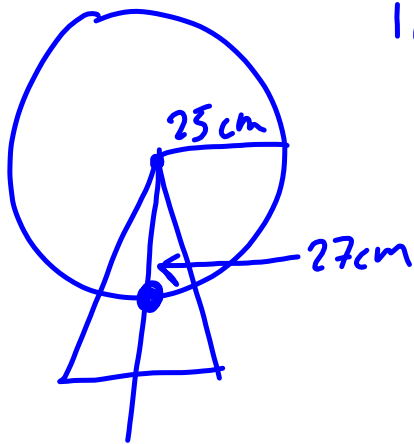
Equations of —

$$t_n = a + (n-1)d$$

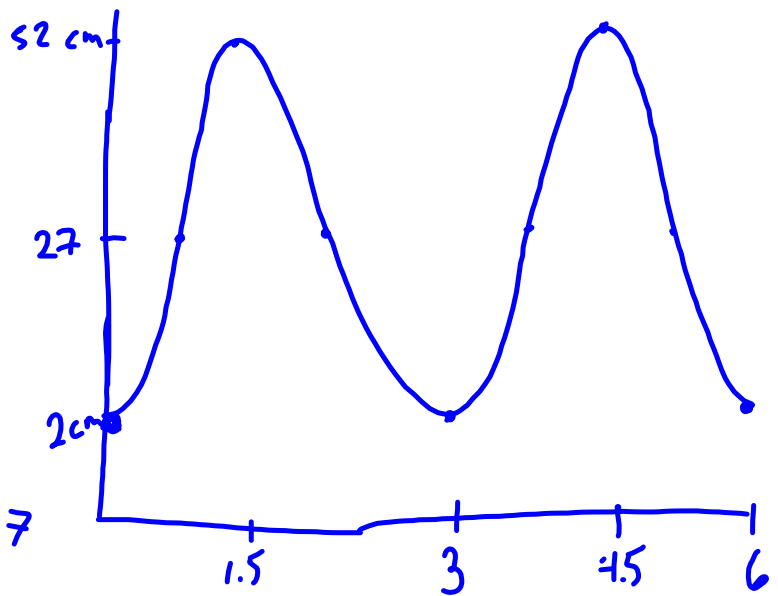
\uparrow starting # \uparrow amount added/subtracted

$$\dots, \frac{-3\pi}{2}, \frac{\pi}{2}, \frac{5\pi}{2}, \frac{9\pi}{2}, \dots$$

$$\begin{aligned}
 t_n &= \frac{\pi}{2} + (n-1)2\pi \\
 &= \frac{\pi}{2} + 2\pi n - 2\pi \\
 &= \frac{\pi}{2} - \frac{4\pi}{2} + 2\pi n \\
 &= -\frac{3\pi}{2} + 2\pi n
 \end{aligned}$$



1 rev in 3 sec

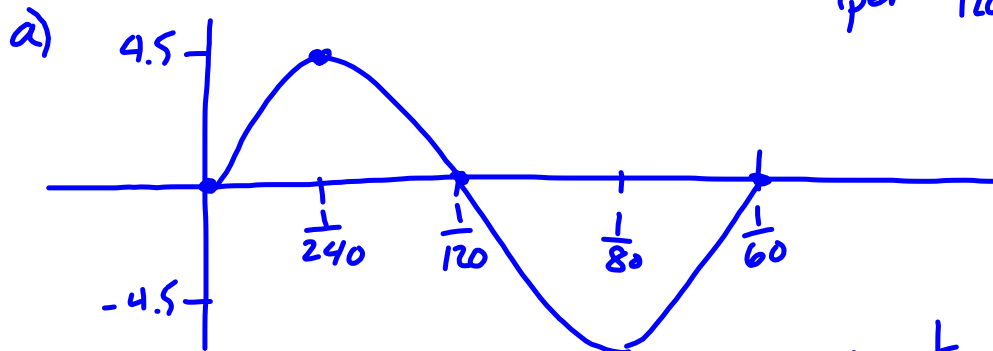


$$h(t) = -25 \cos\left(\frac{2\pi}{3} t\right) + 27$$

$$k = \frac{2\pi}{3}$$

$$12) I(t) = 4.5 \sin(120\pi t) \quad t \rightarrow \text{seconds}$$

$$\text{per} = \frac{2\pi}{120\pi} = \frac{1}{60}$$



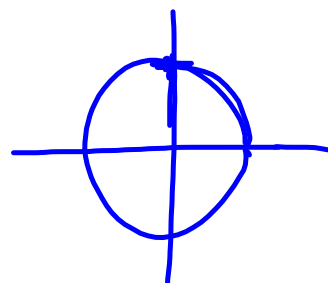
b) $\frac{1}{60}$ of a second

c) $\frac{1}{240}$ s

d) $\frac{1}{80}$ s

Pg 378

$$1) \quad x = \frac{5\pi}{2} \quad \text{RAMP} = \beta = \frac{\pi}{2}$$

 $\tan \theta$ $\sec \theta$ 

$$3) \quad y = \cos x$$

$$y = -12 \cos\left(\frac{5}{3}\left(x + \frac{\pi}{6}\right)\right) + 100$$

Stuff on Test

$$\frac{1}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

- radians

↳ convert degrees \leftrightarrow radians
 ↳ angular velocity (radians/s)

↳ 1 radian \rightarrow when arclength = radius

$$\# \text{ radians} = \frac{\text{arclength}}{\text{radius}}$$

- transformations

\rightarrow sketch from equation

\rightarrow get formula from graph

\rightarrow word problems

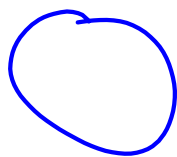
\rightarrow get equation

\rightarrow sketch

\rightarrow interpret

\rightarrow reciprocal functions .

\rightarrow angles in standard position



$$\cos \theta = -\frac{1}{2}$$

$$0 \leq \theta \leq 2\pi$$

- Describe properties