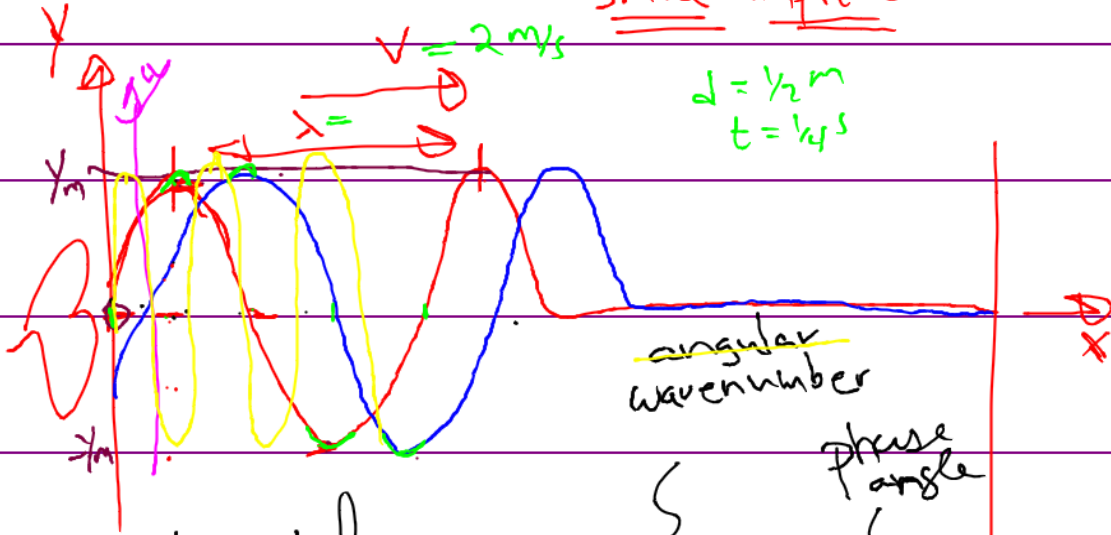


$$y_m \ll \lambda$$

small amplitude waves



$$d = \frac{1}{2} m$$

$$t = \frac{1}{4} s$$

sinusoidal

$$\sin(\theta) = \sin(\theta + 2\pi)$$

$$y(x, t) = y_m \sin(kx - \omega t + \phi)$$

angular frequency

$$kx = \frac{2\pi x}{\lambda}$$

$$k = \frac{2\pi}{\lambda} = \frac{2\pi}{3} \text{ m}^{-1}$$

$\lambda = 6 \text{ m}$

$$\omega = \frac{2\pi}{T}$$

$$f = \frac{1}{T}$$

$$T = \frac{1}{f}$$

$$k = \frac{2\pi}{\lambda} = \frac{2\pi}{\lambda} f$$

$$v = \frac{\lambda}{T} = \frac{\omega}{k}$$