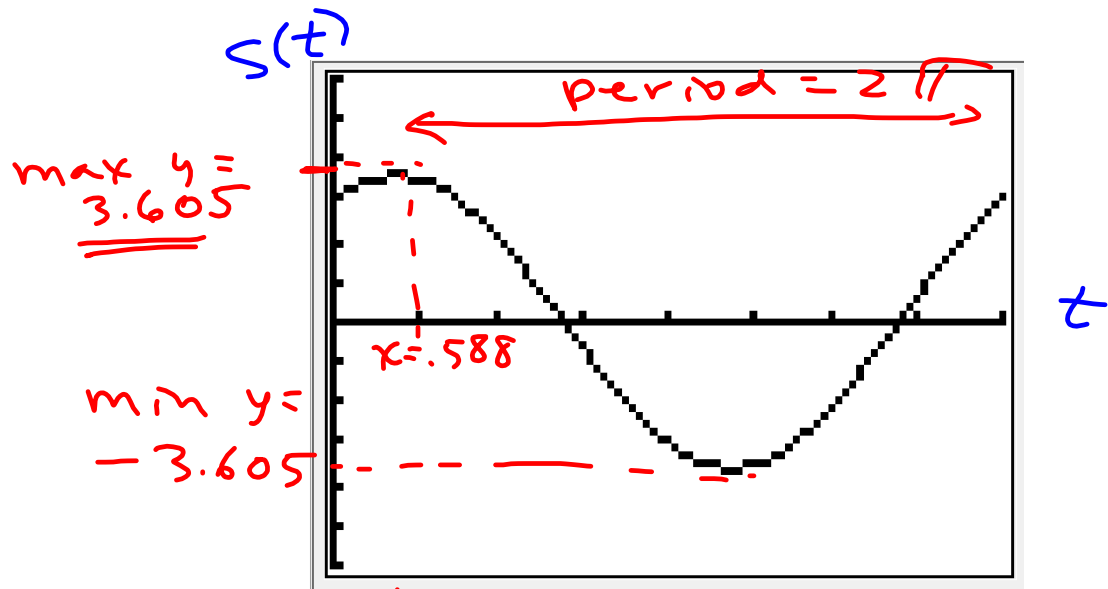


#3 p. 146

$$y = \frac{1}{x} + 5 \sin x$$
$$= x^{-1} + 5 \sin x$$

$$\frac{dy}{dx} = -1x^{-2} + 5 \cos x$$
$$= -\frac{1}{x^2} + 5 \cos x$$

$$\#15 \quad s(t) = 2 \sin t + 3 \cos t$$
$$v(t) = 2 \cos t - 3 \sin t$$
$$a(t) = -2 \sin t - 3 \cos t$$
$$a\left(\frac{\pi}{4}\right) = -2\left(\frac{\sqrt{2}}{2}\right) - 3\left(\frac{\sqrt{2}}{2}\right)$$
$$= -\frac{5\sqrt{2}}{2}$$



$S(0) = 3$   
move + dir to  $t = \frac{\pi}{4}$