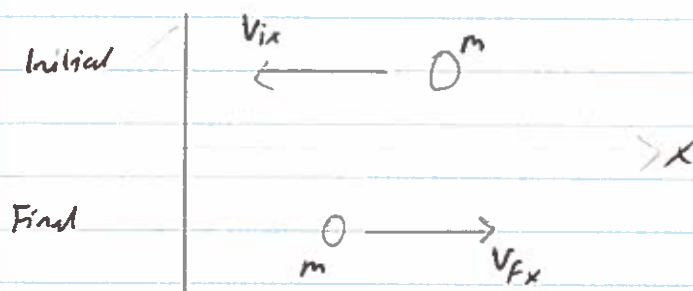


Ex 8.2
p245



a/ Impulse, $\vec{J} = \Delta \vec{p}_x = p_{fx} - p_{ix}$ occurs in x-dir or

$$p_{fx} = m v_{fx}$$

$$p_{ix} = m v_{ix}$$

$$J_x = m (v_{fx} - v_{ix})$$

$$= (0.40 \text{ kg}) (20 \text{ ms}^{-1} - (-30 \text{ ms}^{-1}))$$

$$\underline{J_x = 20 \text{ Ns}} \quad (\text{kg ms}^{-1})$$

b/ Impulse, $J_x = F_x \Delta t$

$$F_x = \frac{J_x}{\Delta t} = \frac{20 \text{ Ns}}{0.010 \text{ s}}$$

$$\underline{F_x = 2000 \text{ N}}$$

