

$$P_1 = mV_1$$

$$P_2 = mV_2$$

$$y) \quad \Delta P_y = -P_2 \cos 50 - P_1 \sin 30$$

$$\Delta P_y = -(mV_2) \cos 50 - (mV_1) \sin 30$$

$$\Delta P_y = -(2)(10) \cos 50 - (2)(15) \sin 30$$

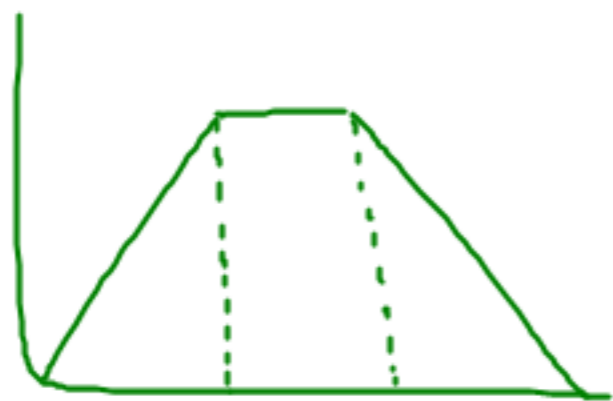
$$\Delta P_y = -2.79 \text{ kgm/s}$$

$$x) \quad \Delta P_x = P_2 \sin 50 - P_1 \cos 30$$

$$\Delta P_x = (2)(10) \sin 50 - (2)(15) \cos 30$$

$$\Delta P_x =$$

13)



b) $\text{area} = \text{Impulse} = Ft = \bar{F}t$

c) $\text{Impulse} = \text{change in Mom}$

$$\Delta p = \Delta p$$

$$= m \Delta v$$

$$= m(v_f - v_i)$$