

$$\Delta t = 0.05 \text{ sec}$$

$$V_{1i} = \frac{0.035}{0.05} = 0.7 \text{ m/s}$$

$$P_{1i} = 0.26 \text{ kg m/s}$$

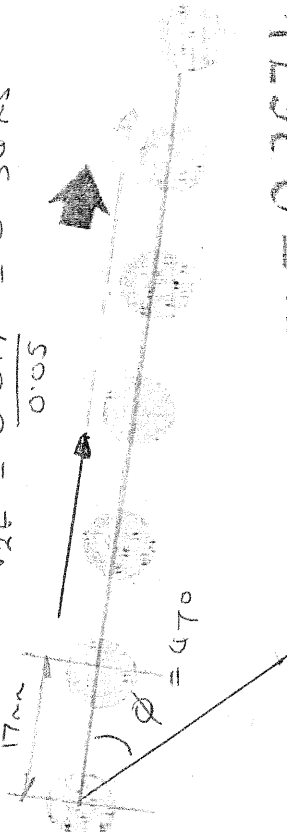
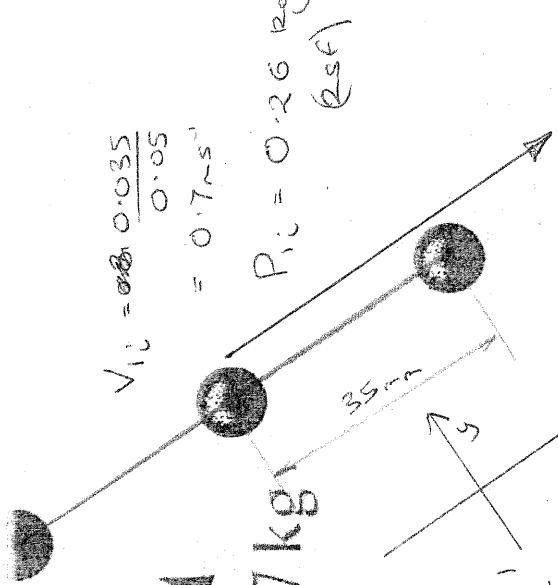
$$m_1 = 0.367 \text{ kg}$$

$$P_{2f} = 0.12 \text{ kg m/s}$$

$$V_{2i} = 0$$

$$V_{2f} = \frac{0.017}{0.05} = 0.34 \text{ m/s}$$

$$m_2 = 0.367 \text{ kg}$$



$$P_{1i} = \sum P_{2c}$$

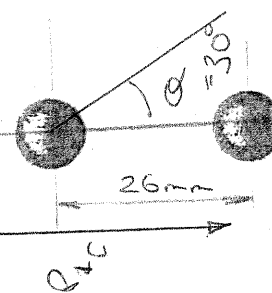
$$P_{1i} = P_{2f} \cos \phi + P_{1f} \cos \phi$$

$$0.26 = 0.12 \cos 47^\circ + 0.19 \cos 30^\circ$$

$$= 0.0872 + 0.165$$

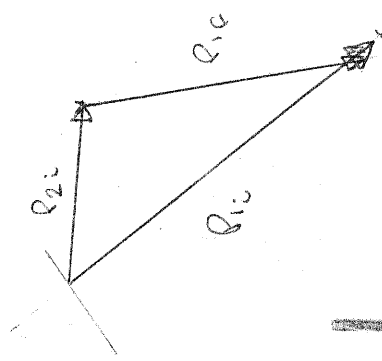
$$0.26 = 0.25$$

(3)



$$V_{2f} = \frac{0.028}{0.05} = 0.52 \text{ m/s}$$

$$P_{2f} = 0.19 \text{ kg m/s}$$



$$V_{1i} = \frac{0.06}{0.10} = 0.6 \text{ m/s}$$

$$P_{1i} = 1.1 \text{ kg m/s}$$

$$\Delta t = 0.10 \text{ sec}$$

$$\alpha = 54^\circ$$

P_{1i}

$$m_1 = 1.80 \text{ kg}$$

P_{1e}

$$\beta_1 = 0$$

$$V_{1e} = \frac{0.052}{0.01} = 0.52 \text{ m/s}$$

$$P_{1e} = 0.94 \text{ kg m/s}$$

$$V_{2i} = \frac{0.04}{0.1} = 0.4 \text{ m/s}$$

$$P_{2i} = 1.7 \text{ kg m/s}$$

$$m_2 = 4.29 \text{ kg}$$

P_{2i}

$$\alpha = 28^\circ$$

$$\beta_2 = 97^\circ$$

P_{2e}

$$V_{2e} = \frac{0.03}{0.1} = 0.3 \text{ m/s}$$

$$P_{2e} = 1.3 \text{ kg m/s}$$

Prove

$$\Sigma P = \Sigma P'$$

by vector

Addition

