

$$P. 516 n. 24$$

$$m = 80 \text{ kg}$$

$$v_1 = 55,0 \frac{\text{km}}{\text{h}}$$

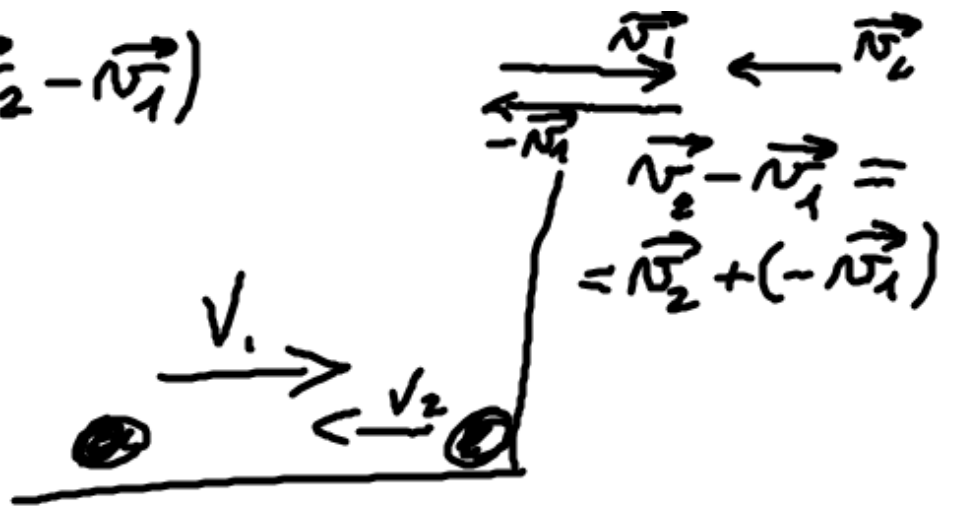
$$v_2 = -5,0 \frac{\text{km}}{\text{h}}$$

$$\Delta T_s = 0,20 \text{ s}$$

$$\Delta T_c = 2,5 \text{ s}$$

$$\Delta p = -1333 \frac{\text{kg} \cdot \text{m}}{\text{s}}$$

$$m(\vec{v}_2 - \vec{v}_1)$$



$$\Delta p = p_2 - p_1 = F_{12} \cdot \Delta t$$

$$p_1 = m v_1 =$$

$$= (80 \text{ kg}) \left(55,0 \frac{\text{m}}{\text{s}} \right)$$

$$p_2 = m v_2 = 1222 \frac{\text{kg} \cdot \text{m}}{\text{s}}$$
$$= (80 \text{ kg}) \left(-\frac{5,0 \text{ m}}{3,6 \text{ s}} \right) = -111 \frac{\text{kg} \cdot \text{m}}{\text{s}}$$

$$\Delta p = -1333 \frac{\text{kg} \cdot \text{m}}{\text{s}}$$

$$F_{M_s} = \frac{1333 \frac{\text{kg} \cdot \text{m}}{\text{s}}}{0,20 \text{ s}} = 6665 \text{ N} = 6,7 \times 10^3 \text{ N}$$

$$F_{M_c} = \frac{1333 \frac{\text{kg} \cdot \text{m}}{\text{s}}}{2,5 \text{ s}} = 533,2 \text{ N} = 5,3 \times 10^2 \text{ N}$$