

$$1/4) \quad a = \frac{v_2 - v_1}{t} = \frac{28 - 22}{3} = 2 \text{ m/s}^2$$

$$1/6) \quad a = g \approx 10 \text{ m/s}^2$$

$$t = 3 \text{ s} \quad s = h = \frac{g t^2}{2} = \frac{90}{2} = 45 \text{ m}$$

$$1/12) \quad a) \quad \bar{v} = ? \quad \begin{matrix} t = 5 \text{ s} & s = 100 \text{ m} \\ \bar{v} = 20 \text{ m/s} \end{matrix}$$

$$b) \quad v = v_0 + at \Rightarrow a = \frac{v - v_0}{t}$$

$$s = s_0 + v_0 t \quad a = \frac{-v_0}{t} \quad s = \frac{-a t^2}{2} =$$

$$s = \frac{-2 \cdot 100}{25} = -8 \text{ m/s}$$

$$c) \quad v_0 = -at = -(-8) \cdot 5 = 40 \text{ m/s}$$

$$2/1) \quad m_1 = 2 \text{ t} \quad v_1 = 60 \text{ m} \cdot \text{s} = 12 \text{ km/h}$$

$$m_2 = 10 \text{ t}$$

$$a) \quad 2 \text{ t} \cdot 12 \text{ km/h} = 10 \text{ t} \cdot v_2$$

$$v_2 = \frac{24}{10} = 2,4 \text{ km/h}$$

$$b) ?$$

$$t = \frac{60}{12000} = 0,005 \quad s = 2,4 \cdot 0,005 = 12 \text{ m}$$

2/2

$$p' = 1 \cdot 6 = 6 \frac{\text{kg m}}{\text{s}}$$

$$p'' = (1+2) \cdot 2 = 6 \text{ kg m/s}$$

Jah, behtib.

3/1

$$t_u = \frac{v}{g}$$

a) kui kaua lendab?

$$t_a = \frac{v}{g}$$

$$t = ? \quad t = t_u + t_a = \frac{2v}{g} = 2 \cdot \frac{20}{10} = 4 \text{ s}$$

b) $v_0 = ? \quad v_0 = 4 \cdot 30 = 120 \text{ m/s}$

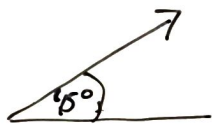
3/3

$$v_0 = 30 \text{ m/s}$$

$$s = ?$$

$$t_u = \frac{v}{g}$$

$$t_a = \frac{v}{g}$$



$$s = t \cdot v = \frac{30\sqrt{2}}{2} \cdot 2 \cdot \frac{30}{10} \cdot \frac{\sqrt{2}}{2} = 90 \text{ m}$$