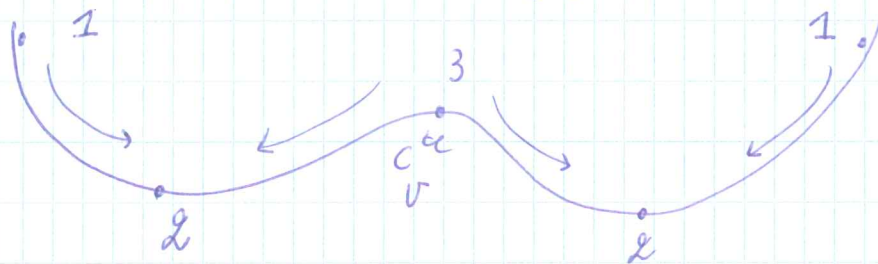


Yellert Decock 614WE
 Margot de Kutter 614WE

Berekeningen ijsgraphic



$$\begin{array}{l|l}
 1) E_{pot, grav} = m \cdot g \cdot h & E_{kin} = \frac{m \cdot v^2}{2} \\
 = m \cdot g \cdot 15 & = \frac{m \cdot 0}{2} = 0 \text{ J} \\
 = 189,0 \text{ N/kg} & = \text{gewichtslaan}
 \end{array}$$

$$2) E_{kin} = \frac{m \cdot v^2}{2} = \frac{m \cdot \left(\frac{40}{3,6}\right)^2}{2} = 189,0 \text{ N/kg}$$

$$\begin{aligned}
 E_{pot} &= m \cdot g \cdot x \\
 &= m \cdot g \cdot 0 = 0 \text{ J}
 \end{aligned}$$

$$3) E_{mech} = E_{kin} + E_{pot, grav}$$

$$189,0 = \frac{m \cdot v^2}{2} + E_{pot, grav}$$

$$E_{pot, grav} = 189,0 - \left(m \cdot \left(\frac{40,0}{3,6} \right)^2 \right) = 124,3 \text{ N/kg}$$

$$v_x = a_x \cdot t + v_{x0}$$

$$\hookrightarrow t = \frac{v_x}{a_x} = \frac{70}{a_x}$$

↓
verlies

$$x(t) = \frac{a_x}{2} \cdot t^2 + v_{x0} \cdot t + x_0$$

$$g_2 = \frac{a_x}{2} \cdot t^2$$

$$g_2 = \frac{a_x}{2} \cdot \left(\frac{70}{a_x} \right)^2$$

$$184 = a_x \cdot \frac{4900}{a_x^2}$$

$$184 a_x = 4900$$

$$a_x = 26,63 \text{ m/s}^2$$