

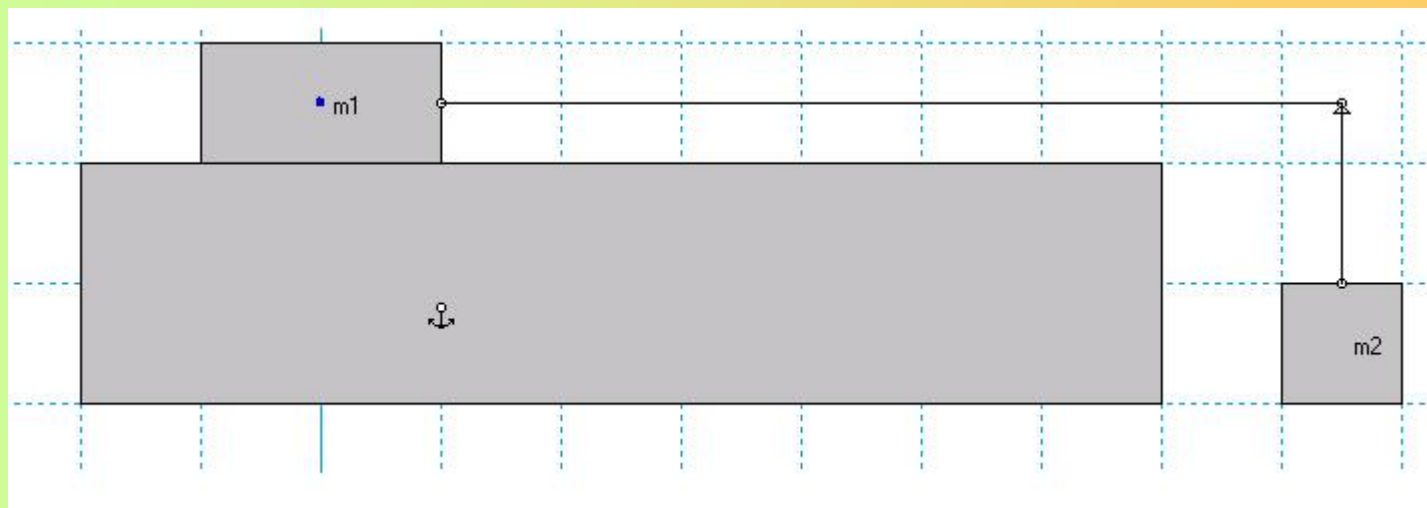
Plano horizontala: ariketa-eredua

Enuntziatua

Kalkulatu

- sistemaren azelerazioa
- sokaren tentsioa

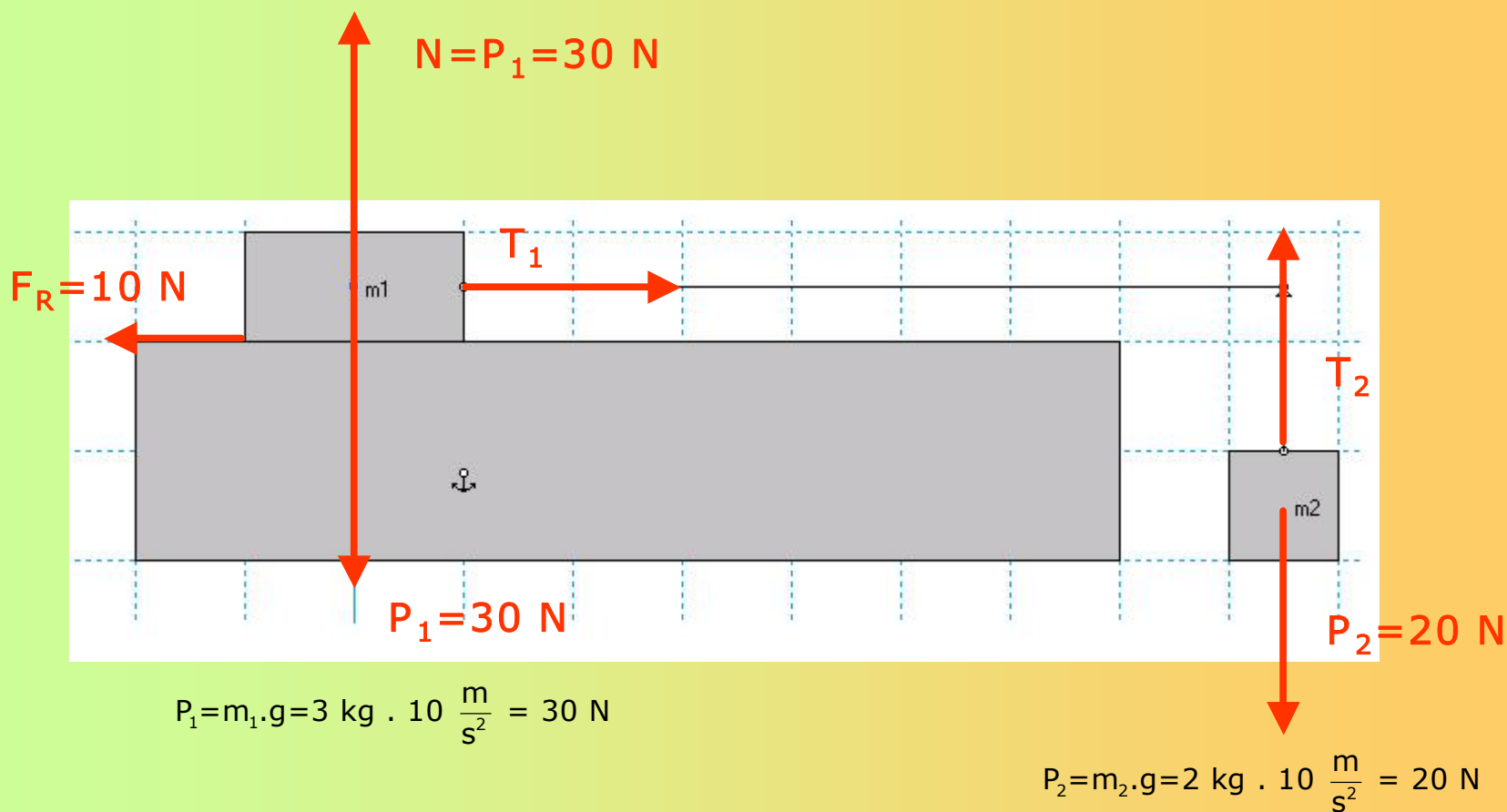
DATUAK: $m_1=3$ kg; $m_2=2$ kg; $F_R=10$ N



Plano horizontala: ariketa-eredua

Ebazpena

1) Indarrak adierazi eta balioak kalkulatu



Plano horizontala: ariketa-eredua

Ebazpena

2) Newton-en ekuazioa aplikatu

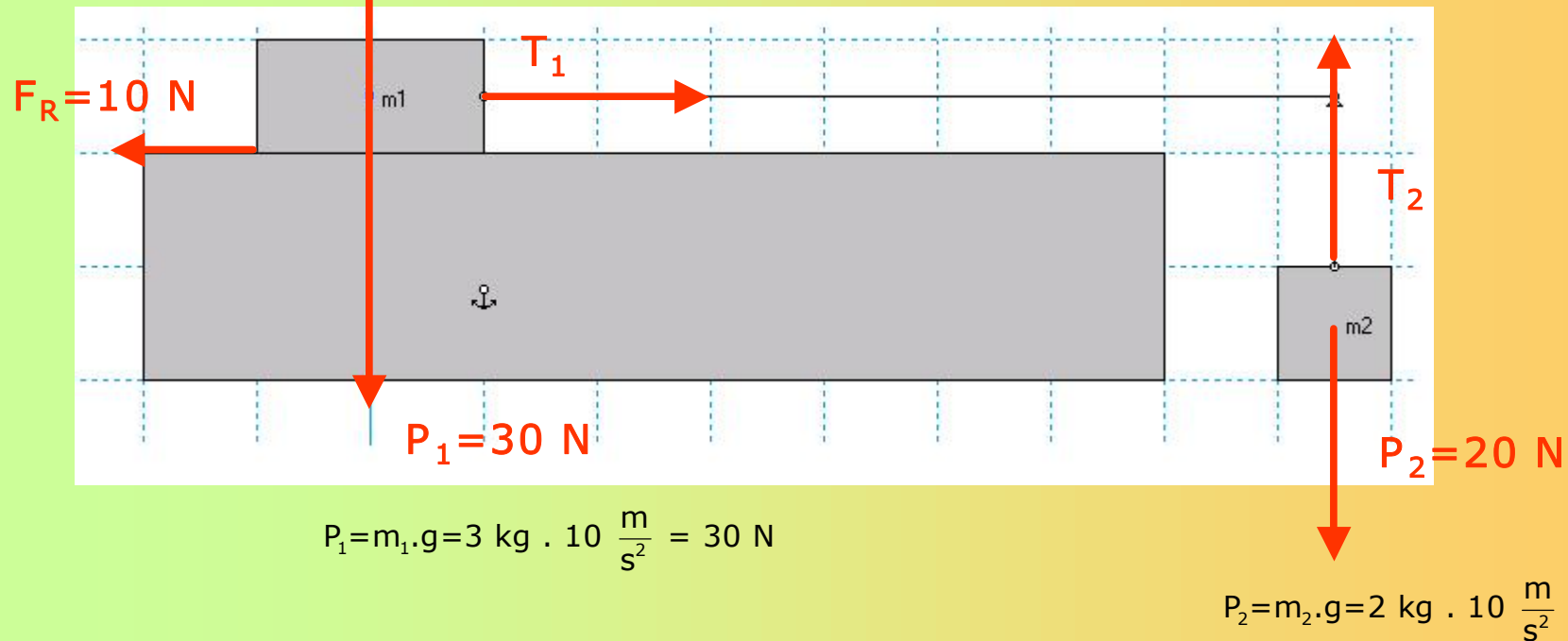
Indar normala eta pisua kantzeltatu egiten dira $N = P_1 = 30 \text{ N}$

Newton-en ekuazioa:

$$m_T = 3 \text{ kg} + 2 \text{ kg} = 5 \text{ kg}$$

$$F_T = m_T \cdot a \rightarrow F_T = 20 \text{ N} - T_2 + T_1 - 10 \text{ N} = 10 \text{ N} \rightarrow 10 \text{ N} = 5 \text{ kg} \cdot a$$

$$a = \frac{10 \text{ N}}{5 \text{ kg}} = 2 \frac{\text{m}}{\text{s}^2}$$

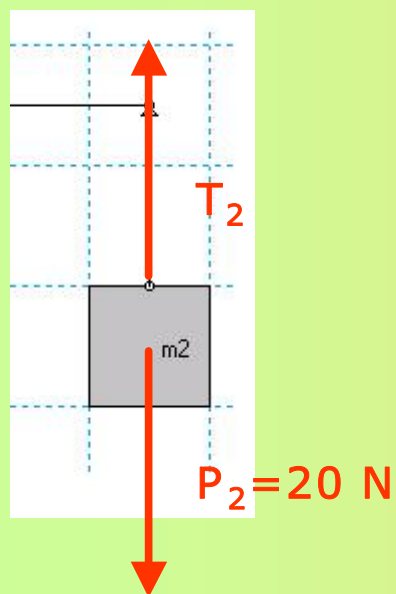


Plano horizontala: ariketa-eredua

Ebazpena

3) Newton-en ekuazioa aplikatu, gorputz bakar bati

$$F_T = m \cdot a \rightarrow 20 \text{ N} - T_2 = 2 \text{ kg} \cdot 2 \frac{\text{m}}{\text{s}^2} = 4 \text{ N}$$
$$T_2 = 20 \text{ N} - 4 \text{ N} = 16 \text{ N} = T_1$$



$$P_2 = m_2 \cdot g = 2 \text{ kg} \cdot 10 \frac{\text{m}}{\text{s}^2} = 20 \text{ N}$$