

¿QUÉ FUERZA ES NECESARIO APLICAR A UN CUERPO DE 85 kg PARA LOGRAR UNA ACCELERACIÓN DE -6 m/s^2 ?

$$\vec{F} = m \cdot \vec{a} = 85 \cdot (-6) = -510 \text{ N}$$

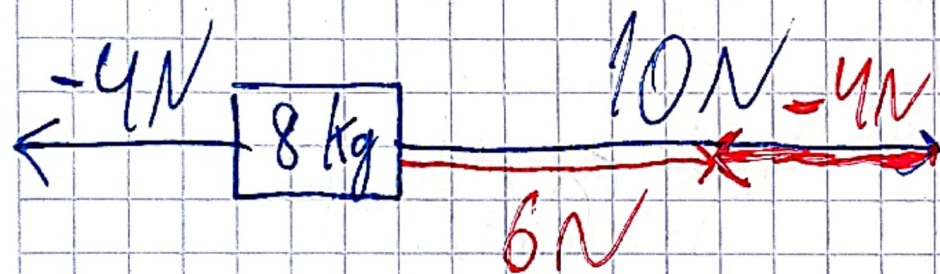
¿QUÉ ACCELERACIÓN ADQUIERE UN CUERPO DE 50 kg AL APLICARLE 15 N?

$$\vec{F} = m \cdot \vec{a} \Rightarrow 15 = 50 \cdot \vec{a} \Rightarrow \frac{15}{50} = \vec{a} \Rightarrow \vec{a} = 0.3 \text{ m/s}^2$$

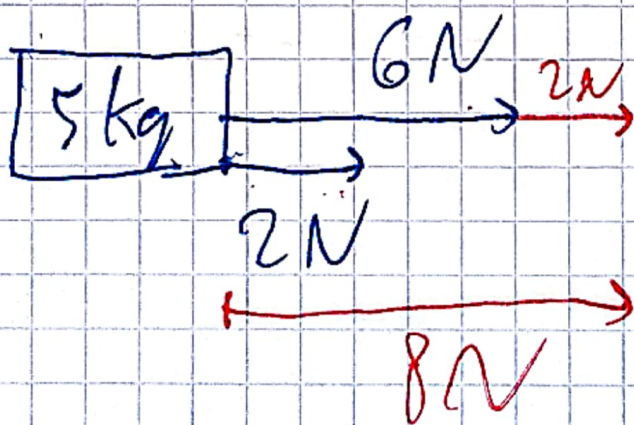
$$\frac{15 \text{ kg} \cdot \frac{\text{m}}{\text{s}^2}}{50 \text{ kg}} = 0.3 \text{ m/s}^2$$

¿QUÉ MASA TENDRÁ UN OBJETO SI AL
APLICARLE 150 N ACCELERA A 8 m/s^2 ?

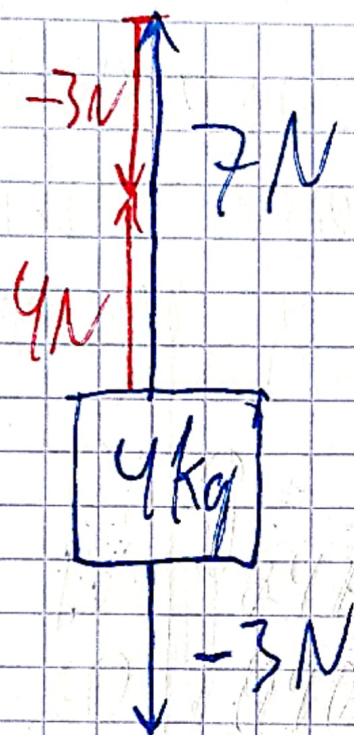
$$\boxed{\vec{F} = m \cdot \vec{a}} \quad 150 = m \cdot 8 \Rightarrow m = \frac{150}{8} = 18.75 \text{ kg}$$



$$\vec{F} = 6 \text{ N} \quad m = 8 \text{ kg}$$
$$6 = 8 \cdot \vec{a} \Rightarrow \vec{a} = \frac{6}{8} = 0.75 \text{ m/s}^2$$



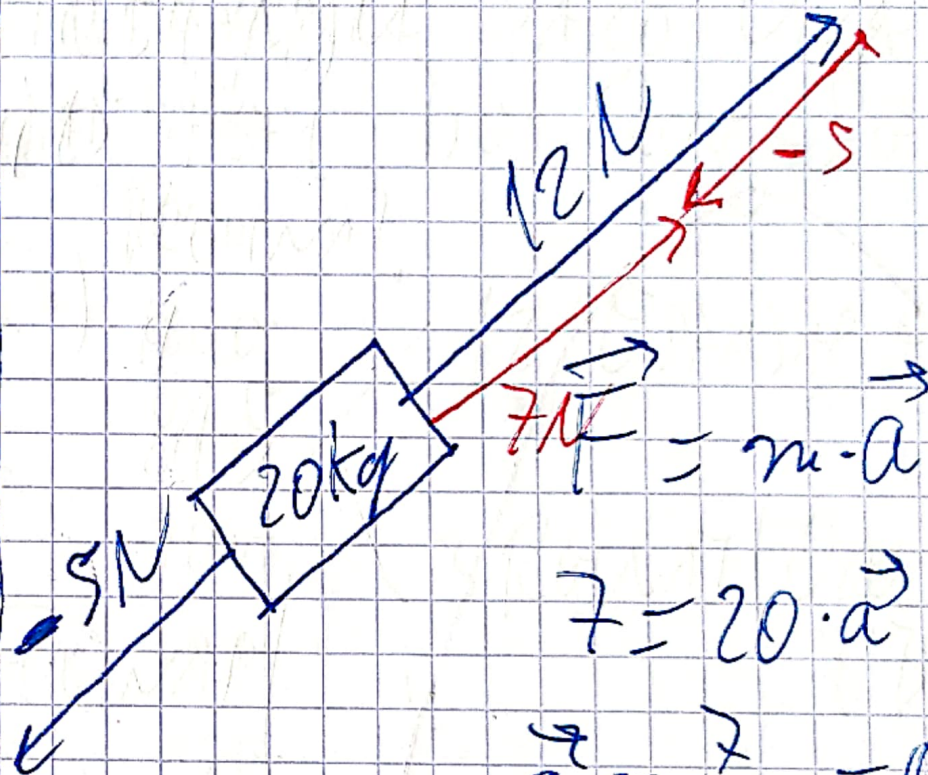
$$\vec{F} = 8 \text{ N} \quad m = 5 \text{ kg}$$
$$8 = 5 \cdot \vec{a} \Rightarrow \vec{a} = \frac{8}{5} = 1.6 \text{ m/s}^2$$



$$\vec{F} = 4N$$

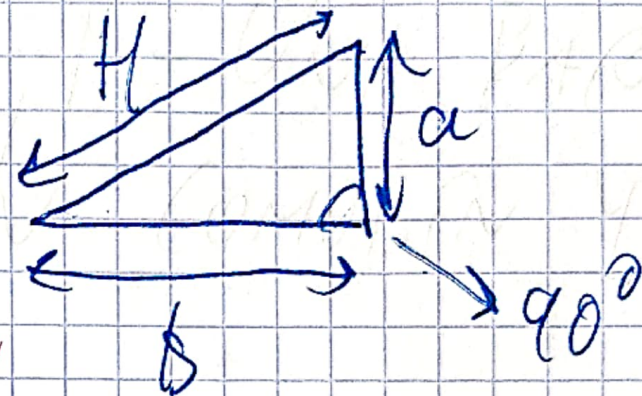
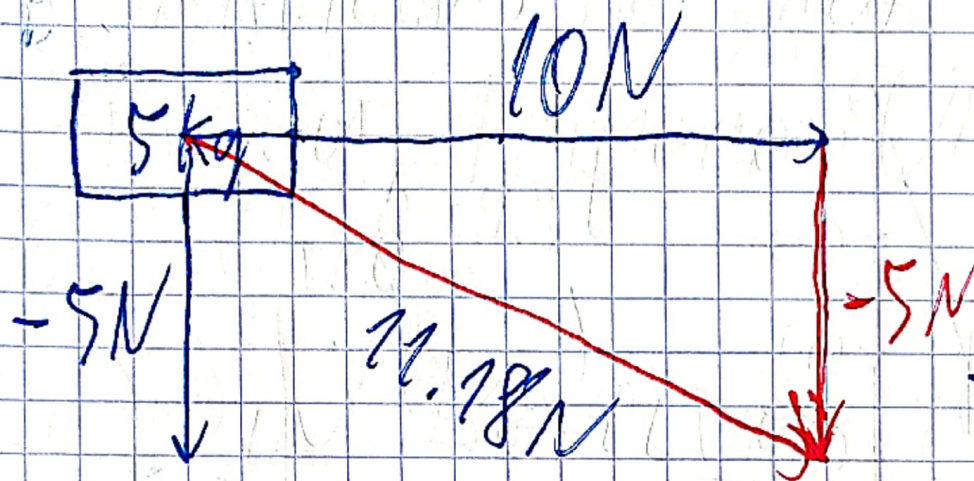
$$4 = 4 \cdot \vec{a}$$

$$\vec{a} = \frac{4}{4} = 1 \text{ m/s}^2$$



$$7 = 20 \cdot \vec{a}$$

$$\vec{a} = \frac{7}{20} = 0.35 \text{ m/s}^2$$

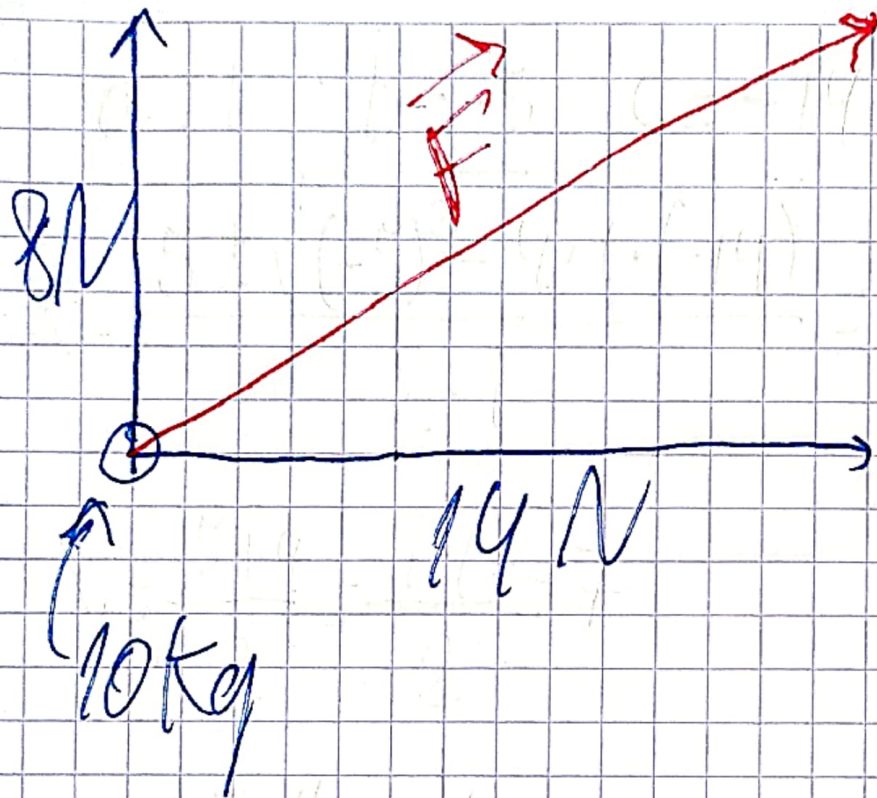


$$H = \sqrt{a^2 + b^2}$$

$$F = \sqrt{10^2 + (-5)^2} = \sqrt{100 + 25} = \sqrt{125} = 11.18 \text{ N}$$

$$\vec{F} = m \cdot \vec{a}$$

$$11.18 = 5 \cdot \vec{a} \Rightarrow \vec{a} = \frac{11.18}{5} = 2.24 \text{ m/s}^2$$



$$\vec{F} = \sqrt{8^2 + 14^2} = \sqrt{64 + 196}$$

$$F = \sqrt{260} = 16.12 \text{ N}$$

$$\vec{F} = m \cdot \vec{a}$$

$$16.12 = 10 \cdot \vec{a}$$

$$\vec{a} = \frac{16.12}{10} = 1.612 \text{ m/s}^2$$