

Дано:

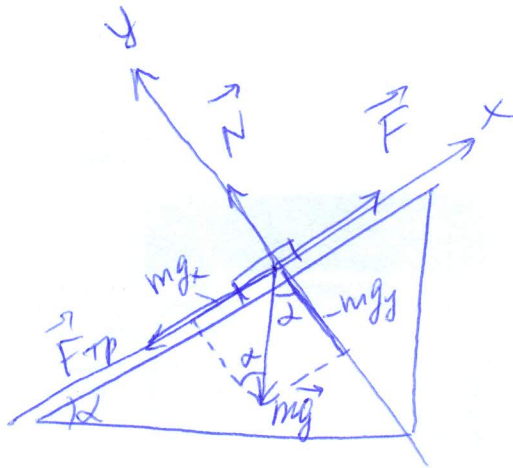
$$m = 20 \text{ кг}$$

$$v = \text{const}$$

$$a = 0.$$

$$F = 204 \text{ Н}$$

$$\alpha = 60^\circ$$



$\mu = ?$

$$\vec{F}_{\text{тр}} + \vec{F} + m\vec{g} + \vec{N} = 0$$

$$\text{Ox: } F - mg \sin \alpha - F_{\text{тр}} = 0$$

$$\text{Oy: } N - mg \cos \alpha = 0 \rightarrow N = mg \cos \alpha$$

$$F_{\text{тр}} = F - mg \sin \alpha$$

$$\mu N = F - mg \sin \alpha$$

$$\mu mg \cos \alpha = F - mg \sin \alpha$$

$$\boxed{\mu = \frac{F - mg \sin \alpha}{mg \cos \alpha}}$$

$$\mu = \frac{204 - 20 \cdot 10 \cdot \frac{\sqrt{3}}{2}}{20 \cdot 10 \cdot 0,5} = 0,3$$

Ответ: $\mu = 0,3$