

Na nakloněnou rovinu s úhlem sklonu  $30^\circ$  prdneme bednu o hmotnosti 2 kg.  
Urči zrychlení, se kterým těleso začne po NR klouzat dolů. Tření zanedbej!

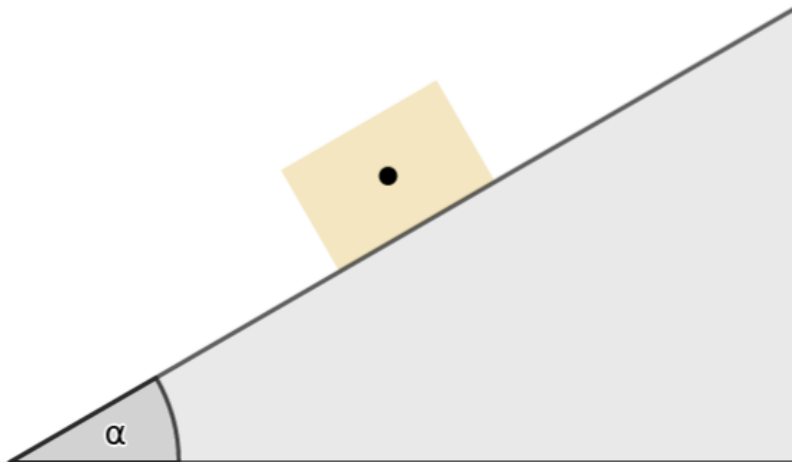
$$m = 2 \text{ kg}$$

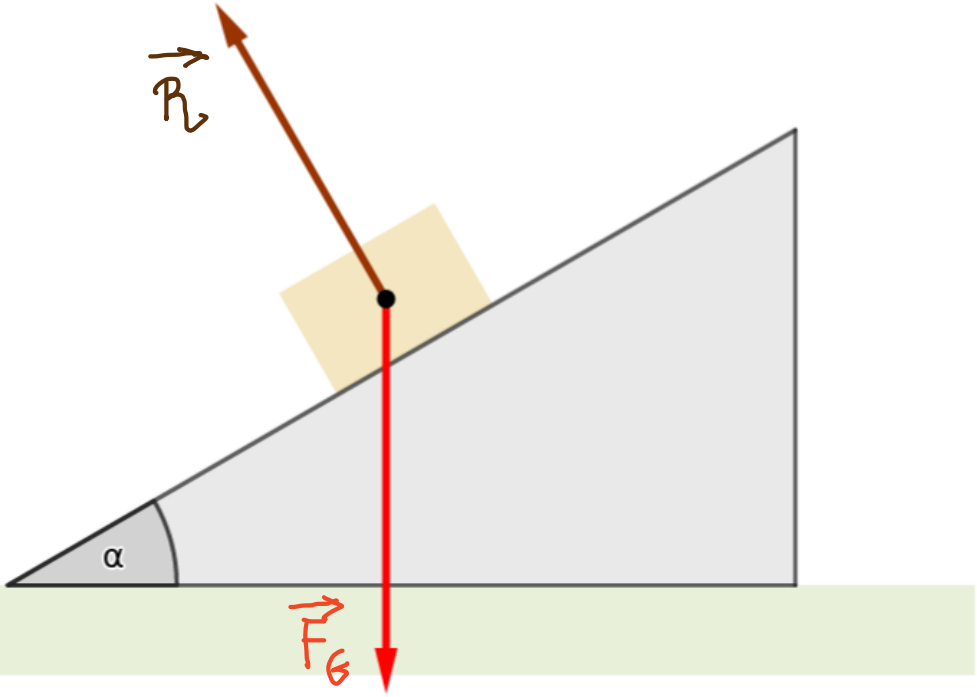
$$\alpha = 30^\circ$$

$$a = ?$$

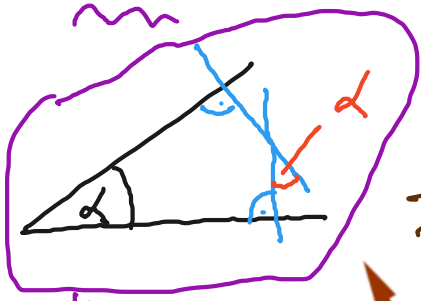
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$$\textcircled{1} \vec{F}_v = ?$$





$$\vec{F}_v = \vec{R} + \vec{F}_G = \vec{R} + \vec{F}_\perp + \vec{F}_\parallel \rightarrow \boxed{\vec{F}_v = \vec{F}_\parallel}$$



VODKO!

2NZ!

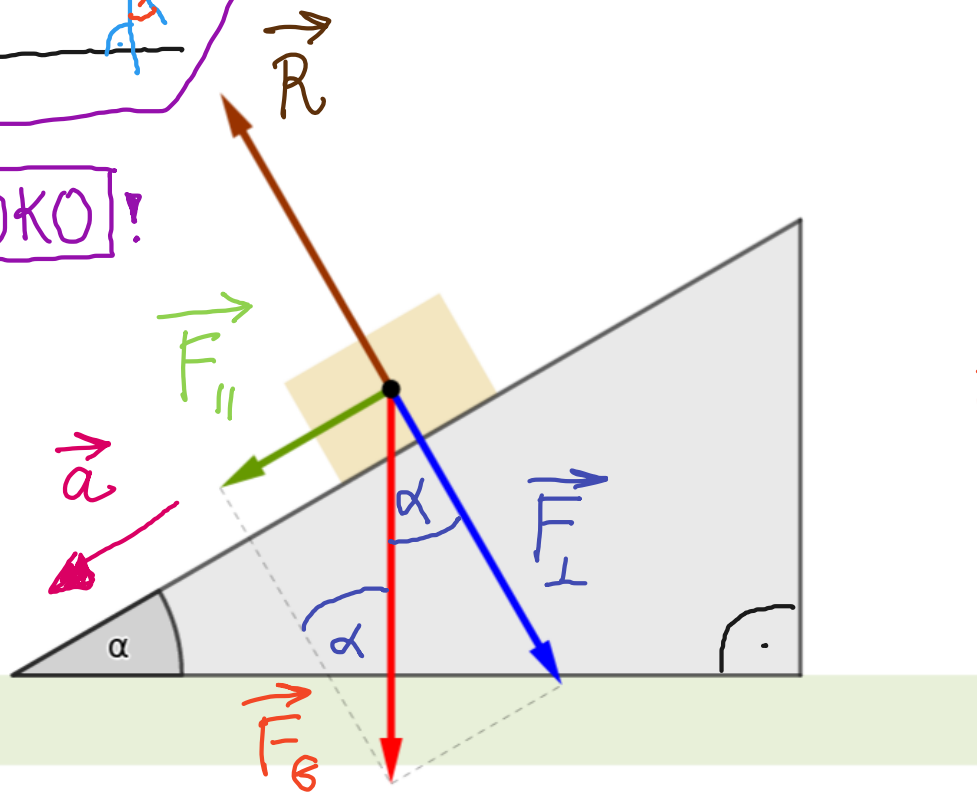
$$\vec{F}_v = \vec{a} \cdot m$$

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

$$F_\parallel = a \cdot m$$

$$a = \frac{F_\parallel}{m}$$

$F_\parallel$  ????



$$T_1 \sim T_2 \text{ (uu)}$$

Učelne:  $\alpha = 30^\circ$   
 $\sin 30^\circ = 0.5$

$$a = 10 \cdot 0.5 = 5 \text{ [m} \cdot \text{s}^{-2}\text{]}$$

$$\sin \alpha = \frac{F_{||}}{F_G} \rightarrow F_{||} = F_G \sin \alpha$$

$$F_{||} = mg \sin \alpha$$

$$a = \frac{F_{||}}{m} = \frac{mg \sin \alpha}{m}$$

$$a = g \cdot \sin \alpha$$

(0;1)

