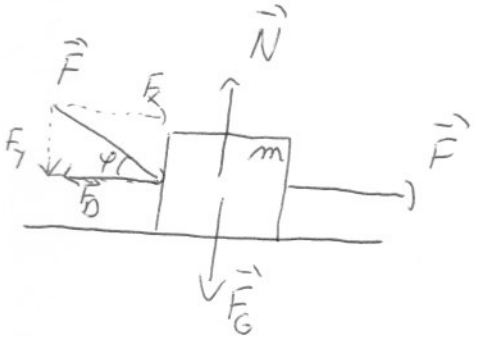
PRÍKLAD 4



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

A) $\sum F_{vy} = ma_y = 0 = N - F_G - F_y$

$N = F_G + F_y = mg + F\sin\varphi$ } 0,5b

$F_D = f_d \cdot N = f_d(mg + F\sin\varphi)$ 0,5b

B) $\sum F_{vx} = ma_x = F + F_x - F_D$ 1b

$= F + F\cos\varphi - f_d(mg + F\sin\varphi)$ 0,5b

$a_x = \dfrac{F + F\cos\varphi - f_d(mg + F\sin\varphi)}{m}$ 0,5b

C) $\sum F_{vx} = ma_x = 0 = F + F_x - F_D$ 0,5b

$F + F_x = F_D = f_d \cdot N$ 0,5b

$F + F\cos\varphi = f_d(mg + F\sin\varphi)$ 0,5b

$f_d = \dfrac{F + F\cos\varphi}{mg + F\sin\varphi}$ 0,5b