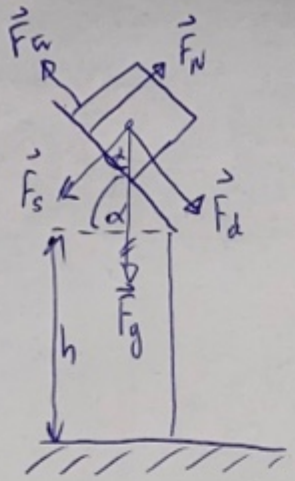
$\alpha = 30°$

$k_{tr} = 0{,}3$

$s = 2\,m$

$h = 10\,m$



$\parallel$: $ma = F_d - F_{tr}$ (2)

$F_d = mg\sin\alpha$

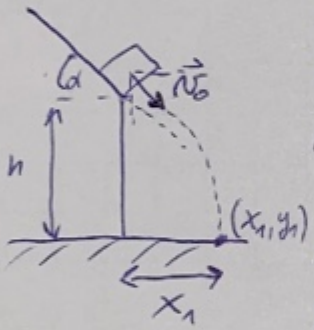
$\perp$: $F_N = F_s$

$F_s = mg\cos\alpha$

$F_{tr} = k_{tr} \cdot F_N$

$ma = mg\sin\alpha - k_{tr} mg\cos\alpha$ (2) (5)

$a = 2{,}356\ m/s^2$ (1)



$v_0 = \sqrt{2as} = 3{,}07\ m/s$ (5)

$v_{0x} = v_0\cos\alpha$ (1)

$v_{0y} = v_0\sin\alpha$

$x_1 = v_{0x} \cdot t_a$

$y_1 = h - v_{0y} t_a - \frac{g t_1^2}{2}$ (7)

$y_1 = 0$

$0 = -\parallel-$

$$t_1 = \frac{-(-v_{0y}) \pm \sqrt{v_{0y}^2 - 4\cdot\left(-\frac{g}{2}\right)\cdot h}}{2\cdot\left(-\frac{g}{2}\right)}$$ (2)

$t_1 = \rightarrow 1{,}28\,s$

$\searrow -1{,}59\,s$ //

$x_1 = 3{,}40\,m$

