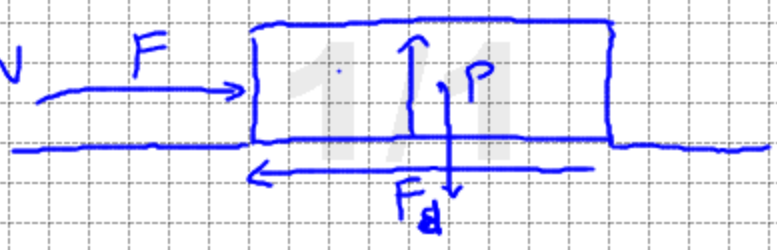
Esercizio n° 10 p. 155

h $m = 55\,kg$ $P = 539\,N$

$\Delta s = 7{,}0\,m$



$F = 150\,N$

$\mu_d = 0{,}25$

$F_d = -0{,}25 \cdot 539\,N =$
$= -134{,}75\,N$

$L = F(\cos\theta)\,s$

$L_F = 150\,N(\cos 180°) \cdot 7\,m =$
$= 1050\,J$

$L_{F_d} = |-134{,}75\,N|(\cos 180°)|7| =$
$= -943\,J$

Es. n° 15 p. 155

$m = 0{,}045\,kg$

$V_i = 41\,m/s$

~~$V_f = 0\,m/s$~~

$\Delta s = 0{,}010\,m$

$V_{i_m} = 0\,m/s$

$V_{f_m} = 41\,m/s$

$L = \Delta K$

$L = \frac{1}{2} m v_f^2 - \frac{1}{2} m v_i^2 =$

$= \frac{1}{2} 0{,}045\,kg\,(41\,m/s)^2 - 0$

$= 38\,J$

$L = F \cdot s \cos 0°$

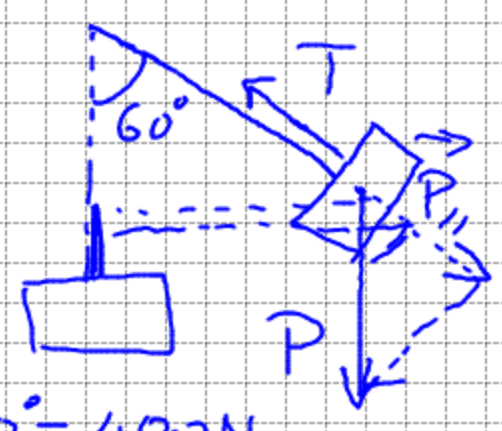
$F = \frac{L}{s \cos 0°} = \frac{38\,J}{0{,}010\,m \cdot 1} =$

$= 3800\,N$

Esercizio n° 41 p 159

$T_{max} = 8{,}00 \cdot 10^2\,N$

$\alpha = 60°$



$P_{//} = T$

$P_{//} = 8{,}00 \cdot 10^2\,N \cdot \cos 60° = 400\,N$

$P = m \cdot g$

$m = \frac{P}{g}$

$m = \frac{400\,N}{9{,}8\,m/s^2} = 40{,}8\,kg$