Subiectul A. MECANICĂ

Nr. item	Soluţie/Rezolvare
III.a.	$E_p = mgh$ $h = l \sin \alpha$ Rezultat final: $E_p = 175J$
b.	$L = Fd \cos(\vec{F}, \vec{d})$ $F_f = \mu N$ $N = mg \cos \alpha$ $L_{F_f} = -\mu mgl \cos \alpha$ Rezultat final: $L_{F_f} \cong -30{,}27J$
c.	$L_t = \Delta E_c$ $L_G = mgl \sin \alpha$, $L_N = 0$ Rezultat final: $E_c \cong 144{,}73J$
d.	$mgx = \dfrac{mv_B^2}{2}$ $\dfrac{mv_B^2}{2} = mg(h-x) - \mu mg \cos \alpha \dfrac{h-x}{\sin \alpha}$; $h = \ell \sin \alpha$ $x = \ell \dfrac{1 - \mu ctg\alpha}{2 - \mu ctg\alpha} \sin \alpha$ rezultat final: $x \cong 1{,}58 \ m$