Subiectul A. MECANICĂ

Nr. item	Soluţie/Rezolvare
III.a.	$L = \frac{mv_0^2}{2}$ Rezultat final: $L = 100J$
b.	$E = mgh + \frac{mv^2}{2}$ $h = \ell \sin\alpha$ Rezultat final: $E = 75J$
c.	$\frac{mv^2}{2} + mg\ell \sin\alpha - \frac{mv_0^2}{2} = -F_f \ell$ $F_f = \mu mg \cos\alpha$ Rezultat final: $\mu = \frac{v_0^2 - v^2}{2g\ell \cos\alpha} - tg\alpha = \frac{\sqrt{3}}{6} \approx 0{,}29$
d.	$\frac{mv^2}{2} + mg\ell \sin\alpha = \frac{mv'^2}{2}$ $v' = \sqrt{v^2 + 2g\ell \sin\alpha}$ Rezultat final: $v' = 5\sqrt{3}\ m/s \approx 8{,}66\ m/s$