Subjectul A. MECANICĂ

Nr. item	Soluţie/Rezolvare
III.a.	
	$P = F \cdot V$
	$P = F \cdot V$ $F = \frac{P}{V} = 5000 N$
b.	
	F-fmg=ma
	$F - fmg = ma$ $a = \frac{F}{m} - fg = \frac{P}{mv} - fg$
	Rezultat final: $a = 4 m/s^2$
C.	
	$v = \frac{P}{F} = \frac{P}{m(a+fg)}$
	$v = \frac{P}{F} = \frac{P}{m(a+fg)}$ $v_{max} = \frac{P}{F_{min}} = \frac{P}{f mg}$
	Rezultat final: $v_{\text{max}} = 35 \text{m/s}$
d.	
	$\Delta E_c = \frac{m \cdot v_{\text{max}}^2}{2}$ $\Delta E_c = 612500 J$
	$\Delta E_c = 612500 J$