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3 GEMA

B_L) A) B)

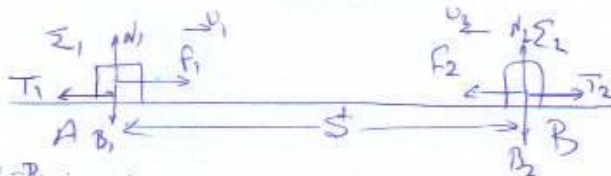
B) To untuk en. berapadunya akan, dpa $a = 6 \text{ m/s}^2 \Rightarrow F = 6 \text{ kN}$.

B₂) A) a)

B) $\Delta K = W_B \Rightarrow K_B - K_A = W_B$
 van $K_A = K = \frac{1}{2} m v^2$
 mi $K_B = \frac{1}{2} m (2v)^2 = 4K$

$\Rightarrow 4K - K = W_B \Rightarrow W_B = 3K$

GEMA A



a) $T_1 = \mu N_1 \xrightarrow{N_1 = P_1} T_1 = \mu m_1 g \Rightarrow T_1 = 20 \text{ N}$
 $T_2 = \mu N_2 \xrightarrow{N_2 = P_2} T_2 = \mu m_2 g \Rightarrow T_2 = 40 \text{ N}$

a2) ~~0~~ ΣF_1 r'rti e.o.k. $\Sigma F_1 = f_1 - T_1 = 20 - 20 = 0 \text{ N}$.
 $\Sigma F_2 = f_2 - T_2 = 60 - 40 = 20 \text{ N} = 60 \text{ N}$ van $a_2 = \frac{\Sigma F_2}{m_2} = \frac{20}{10} = 2 \text{ m/s}^2$

a3) $S = S_1 + S_2 \Rightarrow S = v_1 t + \frac{1}{2} a_2 t^2$
 $\Rightarrow 300 = 5t + t^2 \Rightarrow t^2 + 5t - 300 = 0$
 Mit J'ben n'p'd'nter $t = 15 \text{ s}$ an' d'nd'rt' $\frac{1}{2} a_2 t^2$
 dan 6 ud'rt'nter t' d'nd'rt'nter $S_1 = v_1 t = 5 \cdot 15 = 75 \text{ m}$ an' 20 A.

a4) $W_{f_1} = f_1 \cdot S_1 = 20 \cdot 75 = 1500 \text{ Joule}$.