m / KE / p

$p' = p + 20\%\,p$

$\frac{20}{60} = ,2$

$p' = p + 20\%\,p$

①

$KE = \frac{p^2}{2m}$

$p' = p + ,2p$

$p' = 1,2p$

$KE' = \frac{p'^2}{2m} = \frac{(1,2p)^2}{2m} = \frac{1,44p^2}{2m} = 1,44\,KE$

KE

$KE' = 1,44\,KE$

$,44 = \frac{44}{60}$

$KE' = KE + ,44KE = KE + 44\%\,KE$

$p' = p + 25\%\,p$ ②

$p' = p + ,25p = 1,25p$ ①

KE

$KE' = \frac{p'^2}{2m} = \frac{(1,25)^2 p^2}{2m} = \frac{1,56\,p^2}{2m} = 1,56\,KE$

$KE' = 1,56\ KE$

$KE' = KE + ,56KE$

$KE' = KE + 56\%\ KE$

3

$v_i = 0$

$m = 5kg$

$P = \frac{1}{2} KE$

$\Delta t = 5s$

$F = ??$

$P_i = 0$

$KE_i = zero$

$P_f = \frac{1}{2} KE_f$

$m v_f = \frac{1}{2} \frac{1}{2} m v_f^2$

$v_f = \frac{1}{4} v_f^2 \Rightarrow 1 = \frac{1}{4} v_f$

$v_f = 4 m/s$

$$\Sigma F = \frac{\Delta P}{\Delta t} = \frac{m(v_f - v_i)}{\Delta t}$$

$$= \frac{5(4-0)}{,5} = 40\ N$$

$m = 10\ kg$

$v_i = 2\ m/s$

$v_f = 4\ m/s$

$= m(v_f - v_i)$

$10(4 - 2)$

20

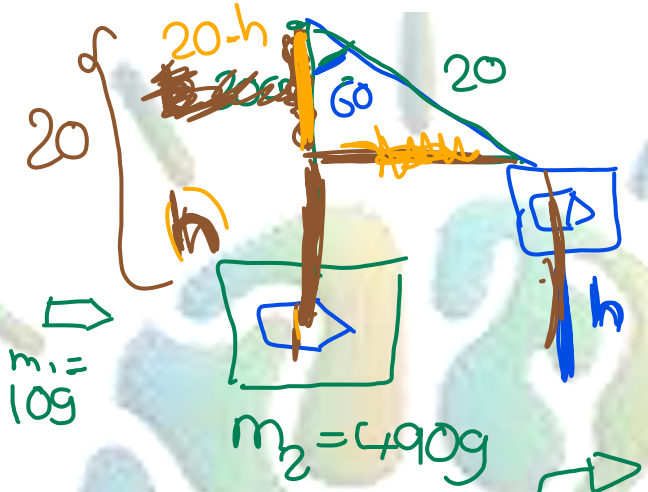
مقدار الدفع

$P_f = 10\ v_f = 10 \times 4 = 40\ kg\,m/s$

كيم الصف

السؤال الثاني

اجب سرعة ارتطام



$\cos 60 = \frac{\text{المجاور}}{\text{الوتر}} =$

$\frac{1}{2} = \frac{20-h}{20}$

$10 = 20-h$

$h = \frac{10\,cm}{100} = \frac{1}{10}$

m/s

$v_{\text{ارتطام}} = \frac{m_1+m_2}{m_1}\sqrt{2gh}$

$= \left(\frac{10+490}{10}\right)\sqrt{2\times10\times h}$

$\frac{500}{10}\sqrt{2\times10\times\frac{1}{10}}$

$v_{\text{اصابة}} = 50\sqrt{2}$ m/s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