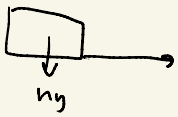
$\Sigma F = ma$

$=$



10 m/s 5 s

$s = 30$ m.

$f =$

$a = 6$ $a = 4$ $a = 2$ $a = 0$

$s = 1, 2$ $s = 3$ $s = 4$ $s = 5$

$\Sigma F = ma$

$W = F \cdot s$

$= 10\left[\overbrace{6+12}^{18} + \overbrace{12+8}^{20}\right] = 380$

$\frac{m}{a} = \frac{1}{a}$

$E_{k_1} = E_{k_2}$

$\cancel{m}gH = \frac{30}{100}\cancel{m}gh$

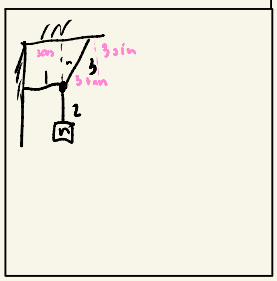
$v^2 = v^2 + 2gH$

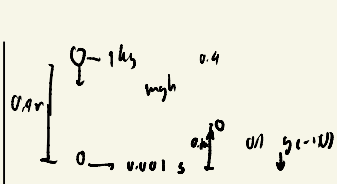
$v = \sqrt{2gH} =$

$v^2 = 2gH + \frac{30}{100}\, 2gH$

$= \frac{30}{100}\, 2gH$

$= \sqrt{0.3(2gH)}$





$\Sigma F = ma$

$s = vt + \frac{1}{2}at^2$

$0.4 = 0 + \frac{1}{2}(10)(1\times10^{-6})$

$v^2 = v^2 + 2as$

$v^2 = 0 + 2(10)(0.4)$

$v^2 = 8$

$v = 2\sqrt{2}$

≈ 2.4

$v^2 = 8 + 2(-10)(0.4)$

$= 8 - 2$

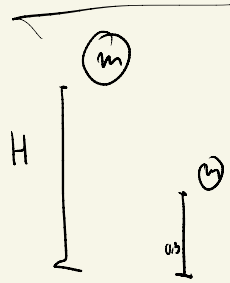
$v = \sqrt{6}$

$s = vt + \frac{1}{2}at^2$

$m = 2\sqrt{2}t + 5t^2$

$= 11$

$F = ma$



$\Sigma F = 0$

$F_1 = F_2$

$F\cos 30 =$

$60 \cos 30$

$\cancel{60}^{3} \cdot \frac{\sqrt{3}}{\cancel{2}} = \cancel{40}$

$3\sqrt{3} = 4$

20

24

$v = 331 + 0.6(20)$

$= 331 + 12$

$v = 343$

$s = vt - \frac{1}{2}at^2$

$100 = 343$

$25 = vt$

200

100 $331 + 20(0.6)$ 12

343

$\frac{100}{343}$ $s = vt$ $s = vt$

$343 \overline{)100.0}$ $\frac{100}{343} = \frac{1}{0}$ $\frac{100}{343} =$

686

3140

3087

530

$343 = 0 + 10t$

$t = 34.3$

$\frac{n_E \cos\theta_2}{n_0 \cos\theta_1} = \frac{n_E \cos\theta}{n_0 \cos\theta}$

$\frac{n_E \cos 60}{\cos 30} = \frac{n_E \cos 60}{\cos 45}$

$= \frac{\frac{\sqrt{3}}{2}}{\frac{\sqrt{2}}{2}} = \frac{\sqrt{3}}{\sqrt{2}}$

$\Delta T = 2\pi\sqrt{\frac{m}{k}} - 2\pi\sqrt{\frac{1}{k}}$

$T = 2\pi\sqrt{\frac{m}{k}}$ $2\pi\left(\sqrt{\frac{m}{k}} - \sqrt{\frac{1}{\sqrt{k}}}\right)$

$= 2\pi\sqrt{\frac{1}{k}}$

$\frac{1}{n_0 \cos\theta_1} = \frac{1}{n_0 \cos\theta_2}$

$n_E \cos\theta = n_0 \cos\theta_1$

$\frac{n_E}{n_0} = \frac{\cos 45}{\cos 30}$

$= \frac{\sqrt{6}}{3}$

$= \frac{1}{}$

$\frac{\cos\theta_2}{\cos\theta_1} = \frac{n_{01}}{n_{02}}$

$\frac{\frac{\sqrt{2}}{2}}{\frac{\sqrt{3}}{2}} =$

$\frac{\sqrt{2}}{\sqrt{3}} =$

$\frac{\text{ice}}{0°C} \xrightarrow{mL} \frac{\text{water}}{0°C} \xrightarrow{mc\Delta T} \frac{\text{water}}{10°C}$

$0.1(33.3\times10^3) + (0.1 \cdot 4200 \cdot 10)$

$F = \frac{GMm}{r^2}$

$= G\frac{g'}{R^2}$

$\frac{G \cdot 2m}{\frac{4}{2}R^2} = \frac{Gmg'}{2R^2}$

$\frac{1}{r} = \frac{}{2R^2}$

$m = \frac{2R^2}{G}$