

$$\cancel{mgh} = 0.7 \cancel{mgh}$$

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

$$0^2 = u^2 + 2(-g)\left(\frac{H}{0.7}\right)$$

$$u^2 = \frac{2g}{0.7} H$$

$$u = \sqrt{\frac{2gH}{0.7}}$$

$$\cancel{\frac{1}{2}mv^2} = 0.7 \cancel{\frac{1}{2}mv^2}$$

$$2gH = 0.7 v^2$$

$$v^2 = u^2 + 2as \quad \sqrt{\frac{2}{0.7}gH} = v^2$$

$$0 + 2(10)H$$

$$v^2 = 2gH$$

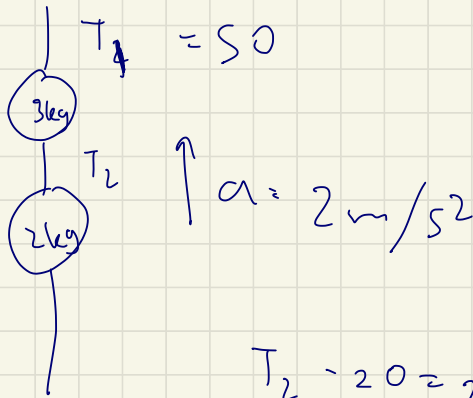
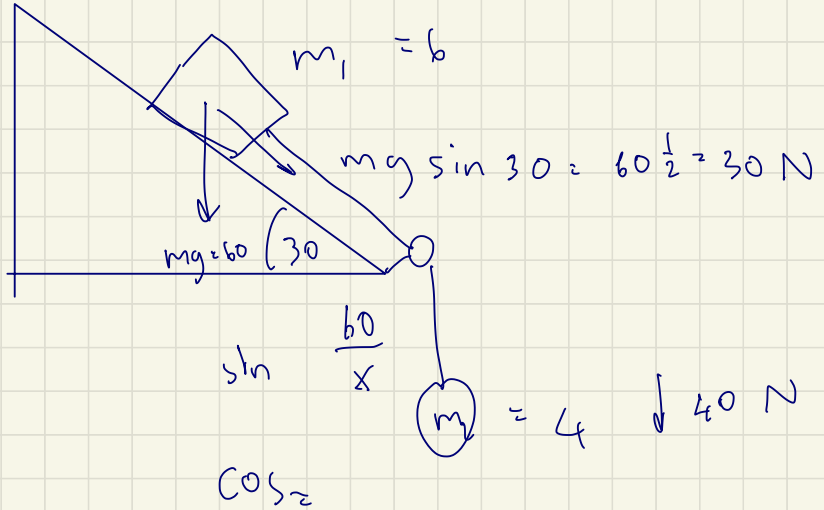
$$v = \sqrt{8}$$

$$v_{\text{mass}} = \sqrt{2}$$

$$\frac{1}{2}mv^2 = \frac{1}{2}m \cdot 8$$

4m

m

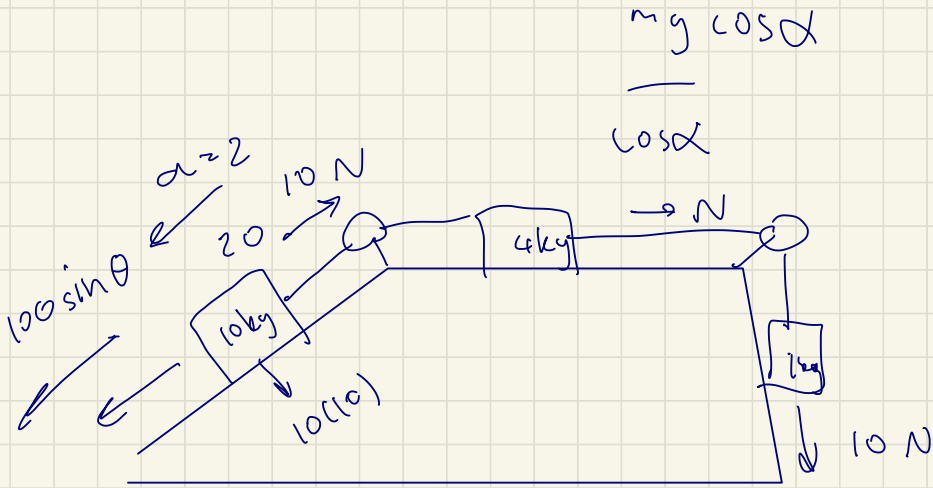
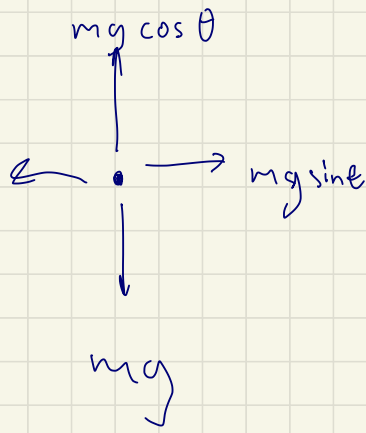


$$T_2 - 20 = 2(2)$$

$$T_2 = 24$$

$$T_1 - 50 = 3(2)$$

$$T_1 = 60$$



$$v = 0$$

$$v = 4$$

$$s = 4$$

$$10 = \mu \cdot 20$$

$$f = \mu \cdot F$$

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

$$16 = 0 + 2(\alpha)(4)$$

$$\alpha = 2$$

$$m_1 v_1 = m_1 v_1 \cos \theta + m_2 v_2 \cos \theta$$

$$\frac{\lambda_0}{\lambda_2} = \frac{n_2}{n_0} \frac{1}{\mu} = \frac{G M}{R^2}$$

$$\frac{\lambda_0 n_2}{n_1}$$

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

$$Q = mL = 0.1(333)$$

$$Q = mc \Delta T = 0.1(4200)$$

$$(10)$$

$$4200 + 33.3$$

$$n_1 \sin \theta_1 = n_2 \sin \theta_2$$

$$(1) \sin 60 = n_2 \sin 30$$

$$V_f = 331 + 0.6(20) \quad \frac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} = n_2$$

$$V_f = 343$$

$$n_2 = \sqrt{3}$$

$$V = \frac{S}{f}$$

$$f = \frac{S}{V}$$

$$\frac{100}{343}$$

$$S = 100$$

$$\Delta T = 20$$

$$f = 9$$

0.3

$$V = \frac{S}{f}$$

$$\lambda = \frac{S}{f T}$$

$$f = \frac{100}{40\sqrt{5}} = \frac{2.5}{\sqrt{5}} \frac{S}{(10)} \left(\frac{1}{S} \right)$$

$$T = \frac{1}{S}$$

$$f = \frac{50}{10} = 5$$

$$S = S$$

$$\lambda = 0$$

$$S = 100$$

$$a = 10$$

$$t = 9$$

$$100 = \frac{1}{2} \left(\frac{S}{a} \right) t^2$$

$$20 =$$

$$t = \sqrt{20}$$

$$V_S = 20\sqrt{T}$$

$$= 20\sqrt{20}$$

$$= 40\sqrt{5}$$

$$= \frac{1}{10}$$

$$m_1 \cdot 10 = m_2 \cdot 24$$

$$m_1 = 2.4 m_2$$

$$W = \frac{GmM}{r^2}$$

$$mg = \frac{GmM}{r^2}$$

r

$$(2r)^2$$

4

C_{14}