$(12)(20) = (n)(1.5)(0.5)\frac{1}{2}$

$n = \frac{(12)(20)}{15}$

$n =$

$\frac{4}{10}$ $\quad 5 \times 60 = 300$

$0,4 = \frac{1}{2^n}$ $\quad 300$

$2^n = 2.5$ $\quad 1 \to 0.5 \to 0.25 \to 0.125$

$\frac{6.625 \times 3}{5}$

$1,328$

$\frac{10}{4} = 2$

5730 | 50 — 25 (40)

$n = 1.322$

$10 = n\lambda$

$10 = \left(\frac{n-1}{2}\right)\lambda$ $\quad v = 343$ m/s

$10 = \frac{3}{2}\lambda$ $\quad \lambda = 0,58$ m

$\lambda = \frac{20}{3}$ m

10

$\frac{50}{10} = 3 \cdot f$

$\frac{15}{2} = f$

$f = 7,5$ Hz

$\lambda = 0.4 \left(\frac{9}{10}\right)(258) = 10.6$

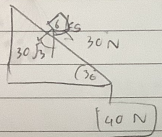
$f = \frac{330}{(2)(0.7)}$

$d = 10$ $\quad f = 660$ Hz

$10 = (0,58)(n)$

$n = 17.24$

16 $\quad$ 16



$F = ma$

$30 = (10)(a)$

$a = 3\ m/s^2$

$\Sigma F = ma$

$T - (4)(7)$

$T - 40 = (4)(7)$

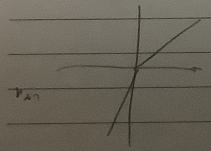
$mg - T = (4)(7)$

$T = 40 - 28$

$= 12\ N$

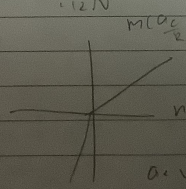
$mg\ h$

$W = FS$



$T = \frac{mv^2}{R \sin\theta}$

$T \sin\theta = \frac{mv^2}{R}$



$a = v^2/R$

$a_c = 4\pi^2 R / T^2 = \omega^2 R$

$mg \quad F \sin\alpha$

$f = \mu F \sin\alpha$

$\Sigma F = ma$

$= 0$

$F \cos\alpha - \mu F \sin\alpha = 0$

$\cos\alpha = \mu \sin\alpha$

$\mu (mg - F \sin\alpha)$

$F (\cos\alpha + \mu \sin\alpha) - \mu mg$

$\Sigma F = ma$

$F_1 = 1\ N \quad F_2 = 4N \quad F_3 = 9N$

$I = I_0 \left(\frac{1}{\sqrt{2}}\right)^2 = \frac{1}{2}$

$F = (3)(2)$

$F = 6\ N$

$F = (6)(3)$

$F = 18\ N$

$14 = (6)(a)$

$a = \frac{14}{6} = \frac{7}{3}$

$F = (3)(\frac{7}{3})$