[Examen Mecanica]

Axel Rafael López Orozco Idv C

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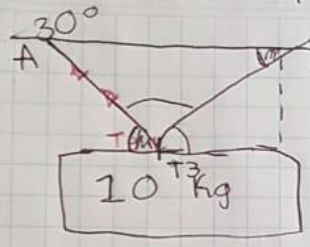
④



$W = M * g$

$W = 10 \times 9.8$

$W = 98\ N$

$\Sigma F_x = T_2 \cos 50° - T_1 \cos 30° = 0$

$T_3 = 98\ N$

$\Sigma f_y = \emptyset$

$T_2 \cos 50° = T_1 \cos 40°$

$T_1 + T_2 + T_3 = 0$

$\frac{T_3}{\text{sen}(100°)} = \frac{T_1}{\text{sen}(140°)}$

$T_1 = \frac{T_3 \cdot \text{sen}(140)}{\text{sen}(100°)} = 63.964957\ N$

$\frac{T_3}{\text{sen}(100°)} = T_1$

$T_2 = \frac{T_1 \cos 40°}{\cos 50}$

$T_2 = (T_1)(1.3472)$

$T_1 \text{ sen } 30° + T_2 \text{ sen } 50° - T_3 = 0$

$(63.96) \text{Sen } 30° + T_2 \text{ sen } 50° - 98 = \emptyset$

$T_2 = 86.18\ N$

$-66.02 + T_2 \text{sen}(50°) = \emptyset$

$T_2 \text{ sen } (50°) = +66.02\ N$

$T_2 = \frac{66.02\ N}{\text{sen}(50)} = 86.18\ N$

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① $W = M * g$

$W = 78 * 9.80$

$W = 764.4\ N$

②

$M = 20\ kg$ $\quad F = m\,a$ $\quad a = \frac{F}{m}$

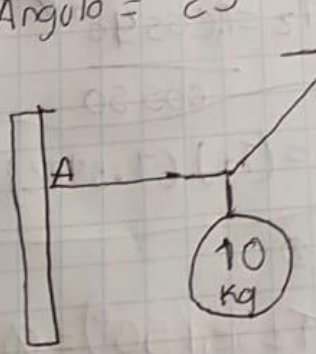
$\Sigma f = 100\ N + 200\ N - 130\ N = 170$

$A = \frac{F}{m} = \frac{170\ N}{20\ kg} = 8.5\ m/s^2$

③

$M = 10\ kg$ $\quad W = 10 * 9.8$ $\quad W = 98\ N$

Angulo $= 25°$



$B = \frac{98\ N}{sen(25°)} = 231.88$

$A = B\cos 25° =$

$A = B\cos 25° = 210.15\ N$

$A = (231.88)(\cos(25°)) = 210.$