

Formulas

$$\Sigma F = 0$$

$$\tau = rF \sin \theta$$

$$\Sigma \tau = 0$$

Key Concepts

F_{net} is a vector $\rightarrow$ decompose to $\Sigma F_x = 0$ and $\Sigma F_y = 0$

θ = the angle the rope/wire makes with the "ceiling"

Translational Equilibrium: (in this course)
zero velocity systems

Rotational Equilibrium: involves a pivot and lever $\rightarrow$ uses torque (τ)

To Remember

θ = the angle a rope/wire makes with the surface/ceiling

pivot position determines which way F is going (CW or CCW)

Slanted beams - think of them parallel to the ground and the forces slanted instead

F_N is present when rope/wire is on the ground



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