

SiQuENC: Torques and forces

Neatly and graphically represent situation(s)

Carefully read the problem three times.
 Draw system and relevant aspects of environment.
 Use dashed bubble to indicate object(s) in system.
 Identify requested unknowns.

Graphically represent quantities and their relationships

Free-body diagram of extended mass

Draw tail of each force vector at point of application.
 Indicate $+x$ and $+y$ directions.
 Indicate axis of rotation (A.O.R.).
 Indicate direction of positive angular advance about A.O.R.

Identify relevant allowed starting point equation(s) including Newton's laws (stated at bottom row)

	Force	F_x	F_y	$\tau_F := r_{\perp} F$:= $(r \sin \theta) F$
1				
2				
3				
4				
5				
6				
7	Σ	ma_x (is $a_x = 0$?)	ma_y (is $a_y = 0$?)	$I\alpha$ (is $\alpha = 0$?)

Analyze

Communicate