

SiQuENC: Newtonian dynamics for circular motion

Neatly and graphically represent situation(s)

Carefully read the problem three times.

Draw system and relevant aspects of environment.

B – Use dashed bubble(s) to indicate object(s) in system (right now).

Identify requested unknowns.

Graphically represent quantities and their relationships

Free-body diagram

E – Is the **E**arth nearby (right now)?

T – Is anything **t**ouching the system (right now)?

A – Indicate +in and, if needed, +y and/or +tan direction(s).

Indicate axis of rotation (A.O.R.).

Indicate direction of positive angular advance about A.O.R.

Identify relevant allowed starting point (in) equations

Including Newton's laws (stated at bottom row)

	Force	F_{IN}	F_y	F_{TAN}
1				
2				
3				
4				
5				
6				
7	Σ	ma_{IN} $(a_{IN} = \frac{v_{TAN}^2}{r})$	ma_y (is $a_y = 0$?)	ma_{TAN} (is $a_{TAN} = 0$?)

Analyze

Communicate