"Circular Motion Formulas" 16/06/2021

$a_c = \frac{v^2}{r}$ ⟹ In term of Linear Velocity.

$a_c = r\omega^2$ ⟹ In Term of angular velocity.

$a_c = r\frac{4\pi^2}{T^2}$ ⟹ In Term of Time period.

$a_c = r4\pi^2 f^2$ ⟹ In Term of frequency.

$\omega = \sqrt{\frac{a_c}{r}}$ ⟹ In Term of omega.

$F_c = \frac{mv^2}{r}$ = CENTRIPETAL FORCE

$F_c = mr\omega^2$ = Term of angular velocity

$F_c = mr\frac{4\pi^2}{T^2}$ = Term of Time period

$F_c = mr4\pi^2 f^2$ = Term of of frequency

$\theta = \frac{s}{r}$ = ANGULAR DISPLACEMENT

$s = \theta r$ = ~~angular~~ Linear displacement

$\omega = \frac{\Delta\theta}{t}$ = ANGULAR VELOCITY

$v = r\omega$ = linear motion.

$\alpha = \frac{\Delta\omega}{t}$ = ANGULAR ACCELERATION

$a = r\alpha$ = linear acceleration