

Module 8: L1 Describing Rotational Motion

meter (m)

$$\Delta x = x_f - x_i$$

$$v = \frac{\Delta x}{\Delta t}$$

m/s.

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

$$\Delta \theta = \theta_f - \theta_i$$

radians (rad)

$$m/s^2$$

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

$$a = \frac{\Delta v}{\Delta t}$$

$$\frac{180}{\pi}$$

$$\frac{\pi}{180}$$

Multiply

rad/s

rad/s²

divide

Multiply

$$\frac{5\pi}{6}$$

the radius (r).

$$40 \text{ rad/s}$$

Multiply

the radius (r).

$$10 \text{ rad/s}$$

$$\frac{3\pi}{2}$$

- Linear displacement = measured in
- Angular displacement = measured in
- Linear velocity = measured in
- Angular velocity = measured in
- Linear acceleration = measured in
- Angular acceleration = measured in .
- To convert any angular quantity to its corresponding linear quantity
 by
- To convert any linear quantity to its corresponding angular quantity:
 by



Name:

Subject : Physics

Date: 18/9/24 Grade: 10

Topic: M8 – Rotational Motion

- $v=20 \text{ m/s}$ and $r = 2 \text{ m}$ then $\omega =$

- To convert the degree into radian \rightarrow by

- To convert the radian into degree \rightarrow by

- $270^\circ =$

- $150^\circ =$