

# Physics Cycle Sheet

April 27, 2020 thru May 1, 2020



**Goals:** TLW prepare for the second semester final.

**Monday:** Class @11:10 – 12:25 PM

**Homework:** Review Three Worksheet

**Tuesday:** No Meeting.

**Homework:** Study Guide

**Wednesday:** No meeting. Work on assignments.

**Homework:** Review Four Worksheet

**Thursday:** Class @11:10 – 12:25 PM

**Homework:** Review Five Worksheet

**Friday:** No Meeting.

**Homework:** Study Guide

## Vocabulary

torque	tangential speed	rotational inertia
lever	centripetal force	rotational speed
fulcrum	equilibrium	center of mass

## Know the following

circular motion	rotational inertia
torque	angular momentum
angular velocity	angular acceleration

## Contact Info

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## Torque

It is the product of force and lever-arm distance, which tends to produce rotation.

$$\text{torque} = \text{lever arm} \times \text{force}$$

## Fulcrum

It is the point where a lever will pivot.

## Rotational Inertia

The measure of an objects' resistance to a change in rotation.

If an object is at rest it tends to stay at rest; if rotating it tends to stay rotating unless acted upon by an external torque.

## Rotational Speed

The number of rotations or revolutions per unit of time.

revolutions per minute (RPM)  
radians per second  
 $360^\circ = 2\pi$  radians

## Tangential Speed

It's the linear speed tangent to a curved path.

## Angular Displacement

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

### **angular motion**

$$\omega_1 = \omega_0 + \alpha t$$

### **Centripetal Force**

It's a center seeking force that causes an object to follow a circular path.

### **Joule**

A joule is the amount of energy transferred to an object when a 1 N force is applied in the direction of force through a distance of one meter.