Foundations of Physics
Cycle Sheet

April 6, 2020 through April 10, 2020

Goals: **TLW** continue to work with angular motion and centripetal forces.

Monday: Class @9:50 – 11:05 AM
Angular Motion II Notes
Warm up #76

Homework: Problems on the back.

Tuesday: No Meeting.

Homework: Angular Motion II Worksheet

Wednesday: No meeting. Work on assignments.

Homework: Circular Motion III Worksheet

Thursday: Class @9:50 – 11:05 AM
Angular Motion III

Homework: Make up work

Friday: Good Friday

Homework: none

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

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Torque

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

torque = lever arm x 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.