

Physics Cycle Sheet

May 8, 2017 through May 12, 2017



Goals: Roller and Semester Final

Monday: Rollercoaster Work Day

Homework: Study for final

Tuesday: Rollercoaster Work Day

Homework: Study for final

Wednesday: Rollercoaster Work Day

Homework: Study for final

Thursday: Rollercoaster Work Day

Homework: Study for final

Friday: Rollercoaster Due Day

Homework: Study for final

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



Rotational Speed

The number of rotations or revolutions per unit of time.

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

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.

Tangential Speed

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

Angular Displacement

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

angular velocity

The angular distance per unit of time.

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

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.