

Unit 1 - Force, Motion, Energy

40% of the year (finished around Christmas)

4 Topics

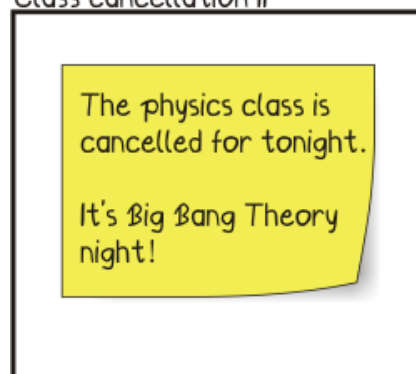
Projectiles

Atwood's machines & Inclined Planes

Uniform Circular Motion

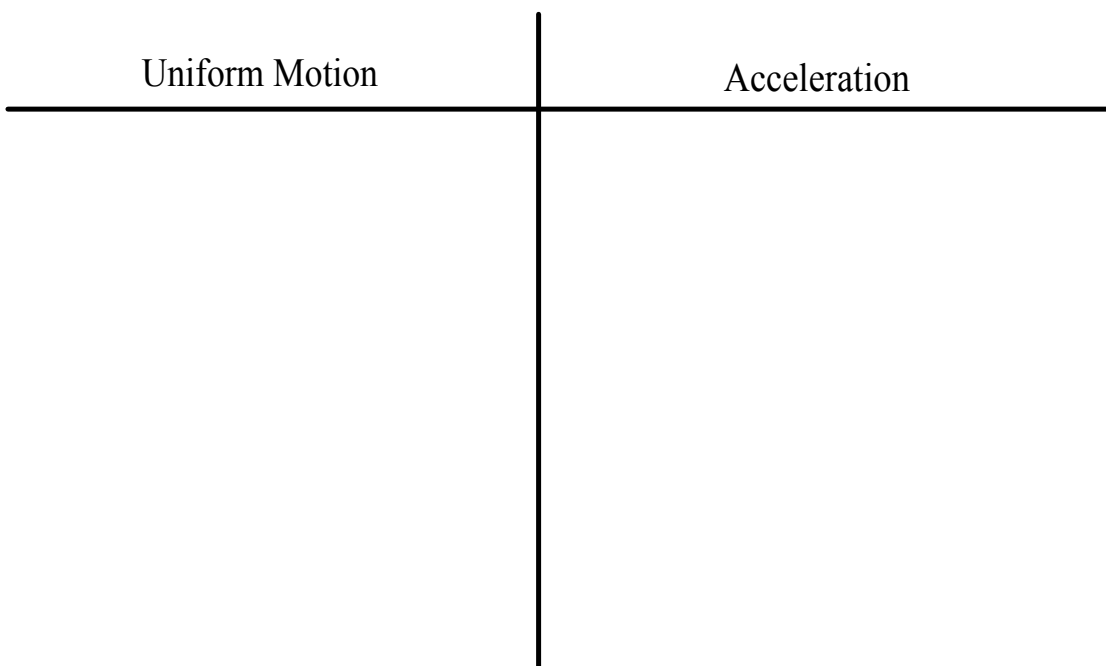
Torque

Class cancellation !!



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But first, a quick review of one dimensional motion from 2204...



The Big 5!

$$\vec{v}_2 = \vec{v}_1 + \vec{a}t$$

$$\vec{d} = \vec{v}_1 t + \frac{1}{2} \vec{a} t^2$$

$$\vec{v}_2^2 = \vec{v}_1^2 + 2\vec{a}d$$

$$\vec{d} = \frac{\vec{v}_1 + \vec{v}_2}{2} t$$

$$\vec{d} = \vec{v}_2 t - \frac{1}{2} \vec{a} t^2$$

Ex 1: A landing plane accelerates at -1.5m/s^2 for 1 min until it stops. How fast was it going before it started to slow down?

Ex 2: A stone is dropped from a height of 6.0 m. What is its velocity when it is halfway down?

Practice...

Advanced Kinematics Review Sheet

p. 73 #37 - 41, 44 - 48

p. 74 #63, 65, 68-71