

Tuesday, May 21/13
Physics 112/111

1. Quiz C6 - Rewrite Friday, May 24 (*In-class*)
 2. Investigation 6-A Force and Spring Extension (Page 255)
5 Days Late
 3. Textbook: Page 287 #1-7
Textbook: Page 329, PFU #21-23, 25
Textbook: Page 332, PFU #38, 39, 54
 4. **ICA: Power, Efficiency and Conservation of Energy - Wed. May 22**
 5. Unit 4 - Waves: Start/Continue
-

Rewrite Fi:d.

Work

$$\Rightarrow W = \vec{F} \cdot \vec{d}$$

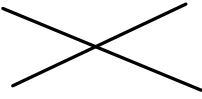
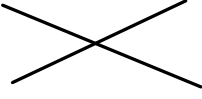
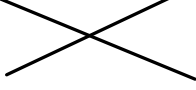
$$W = mgd \quad \text{lift/lower}$$

$$W = \underline{ma}d \quad \text{acceleration}$$

$$\Rightarrow W = 0 \text{ J}$$

\swarrow $F \perp d$ \downarrow $F = 0 \text{ N}$ \searrow $d = 0 \text{ m}$

Energy

<div style="border: 1px solid red; padding: 2px;">Kinetic</div> Energy E_K (motion)	<div style="border: 1px solid red; border-radius: 50%; padding: 2px;">Gravitational</div> Potential Energy E_g (position) (ref. line)	<div style="border: 1px solid red; border-radius: 50%; padding: 2px;">Elastic</div> Potential Energy E_e (condition)
$E_K = \frac{1}{2}mv^2$	$E_g = mgh$	$E_e = \frac{1}{2}kx^2$
		$F_A = kx$ $F = -kx$
$v_i \rightarrow v_f$ ΔE_K	$h_i \rightarrow h_f$ ΔE_g	
$W = \Delta E_K$ $Fd = \frac{1}{2}mv_f^2 - \frac{1}{2}mv_i^2$	$W = \Delta E_g$ $Fd = mgh_f - mgh_i$	