

TEST - Chapters 6 + 7Chapter 6 - Work, Energy + Power

$$W = \bar{F}_{\parallel} \Delta d$$

$$E_k = \frac{1}{2} m v^2$$

$$W = F \Delta d \cos \theta$$

$$E_g = mgh$$

$$W = \text{area } F \cdot d \text{ graph}$$

$$\bar{F}_a = kx \text{ (Hooke's Law)}$$

$$W = \Delta E \text{ (Work-Energy Theorem)}$$

$$E_e = \frac{1}{2} kx^2$$

When no work is done

$$P = \frac{W}{\Delta t}$$

$$\text{Efficiency} = \frac{E_o}{E_I} \times 100\%$$

Chapter 7 - Conservation of Energy + Momentum

$$\text{Energy: } E_{\text{total}} = E'_{\text{total}} \quad (\text{neglecting friction or air resistance})$$

$$\text{Momentum: } \vec{P}_{\text{total}} = \vec{P}'_{\text{total}} \quad (\text{mvp chart})$$

$$\text{Elastic Collisions} \Rightarrow E_{k\text{total}} = E'_{k\text{total}}$$

Review: p 328/20-23, 25, 27-31