## Work & Power

### Objectives

Define & calculate work and power.

Identify appropriate units for work and power.



#### Work

force acting through a distance

$$W = f \cdot d$$

Unit: N-m or Joules (J)



#### Work

force and direction must be in the same plane for work to be done





Weight	#	Time	Dist	Work	Power
Weight	#	111116	Dist	WOIK	1 OWCI
I		I 1			I

#### **Power**

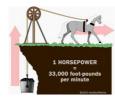
rate at which work is done

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

Unit: J/s or Watts (W)

750 W = 1 hp

1 hp = 550 ft.lb/s



# Assignments . . .



- Begin Chapter 7 Homework # 1 - 5



### Work & Power