



## **Units of Work and Energy**

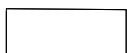
$$w = fd = mad$$

### **Force Units**

cgs system:

$$f = (g)(\text{cm/sec}$$











## **Endothermic vs. Exothermic**





## **Endothermic, Exothermic, and Direction**

?

## **Units of Heat**

- C Formerly, heats of reaction were measured in units of calories, based on the following definition:

One calorie is the heat needed to raise 1.000g of water from 14.50°C to 15.50°C.

- C With the adoption of SI units, the calorie has been redefined in terms of the joule (J), which is the