

850 pound motorcycle. 66 mph.  
Find KE in J.

$KE = \frac{1}{2} m v^2$   
J =  $\frac{kg \cdot m^2}{sec^2}$

850 pounds		1 kg	=	386 kg
		2.2 pounds		

66 miles		1.6 km		1000 m		1 hr		1 min	=	29.52 m/sec
<del>hr</del>		<del>1 mile</del>		<del>1 km</del>		<del>60 min</del>		<del>60 sec</del>		

33 mph  $\frac{1}{2} v_0$  (KE)  $\frac{1}{4}$

$KE = \frac{1}{2} m v^2$   
 $(\frac{1}{2})^2 = \frac{1}{4}$

Oct 13-7:43 AM

(?) Balloon expands Add 850 J heat.  
↳ pushes on atm with 382 J

End  $I_{in} \rightarrow + 850 J$   $\oplus \Delta H$  ENDO

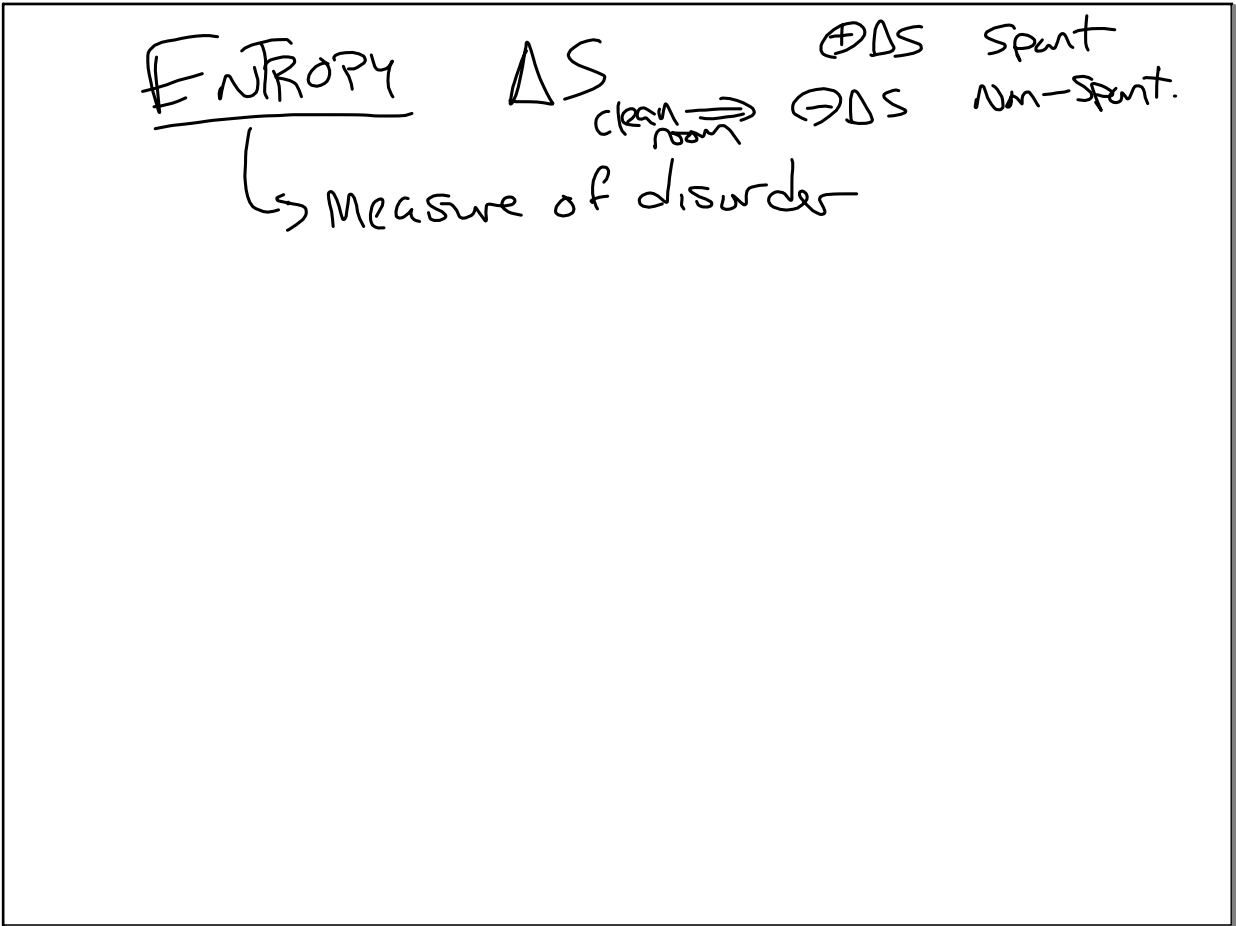
Exothermic  $OUT \rightarrow - 382 J$   $\ominus \Delta H$  EXO

$\Delta H$  Net  $\oplus \Delta H$  ENDO

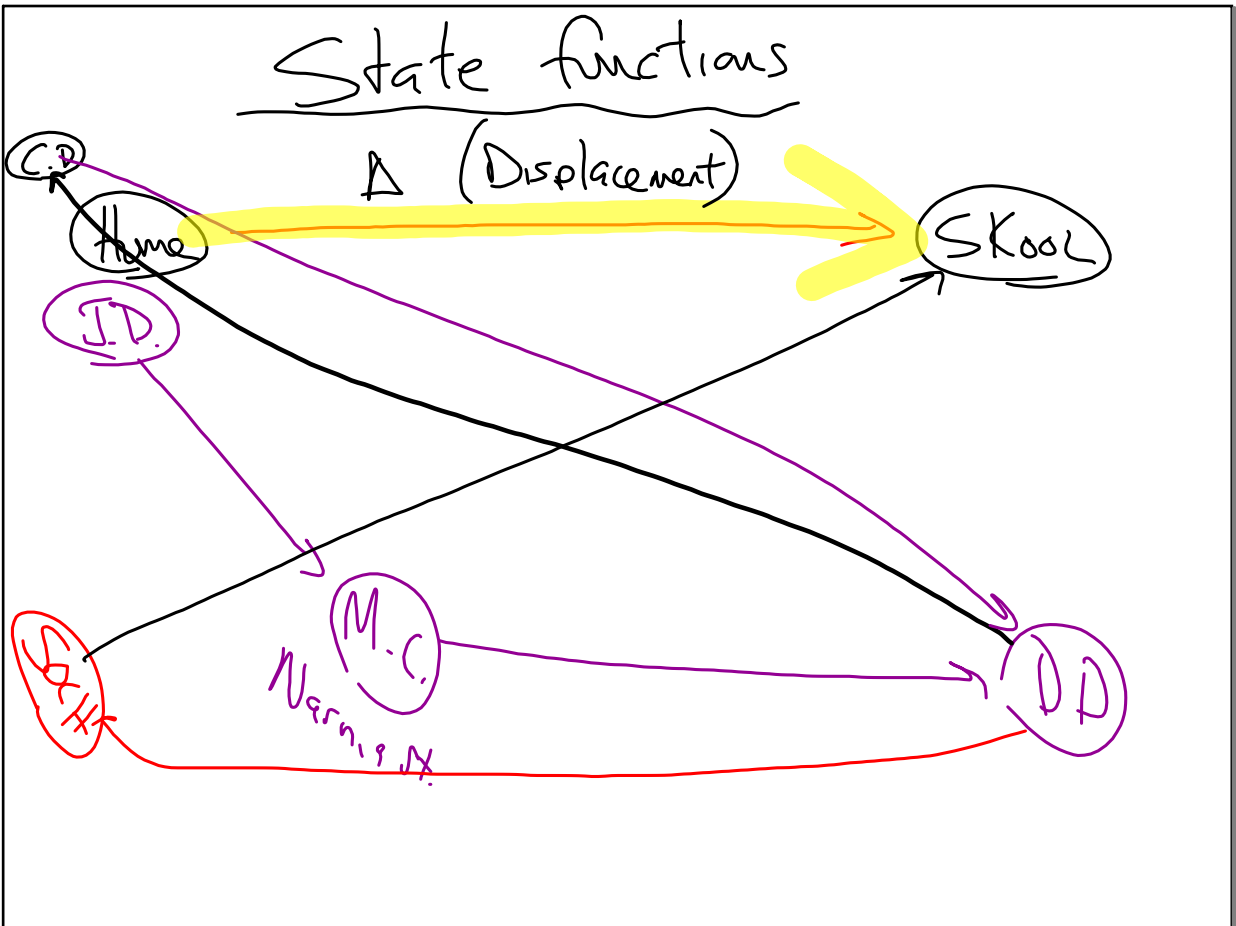
Enthalpy  $\rightarrow$  Total energy in a rxn

Spontaneous Unives rolling down

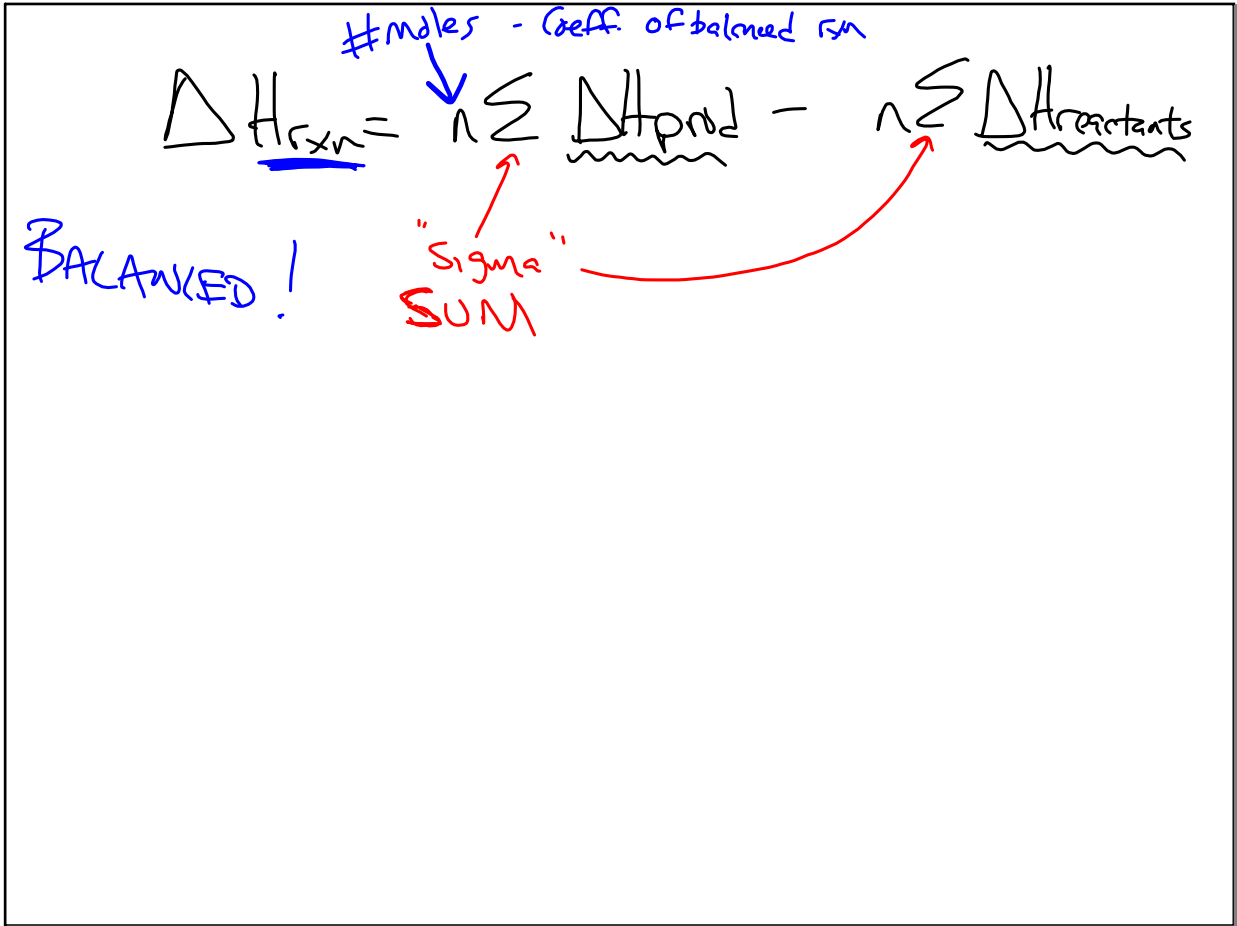
Oct 13-8:06 AM



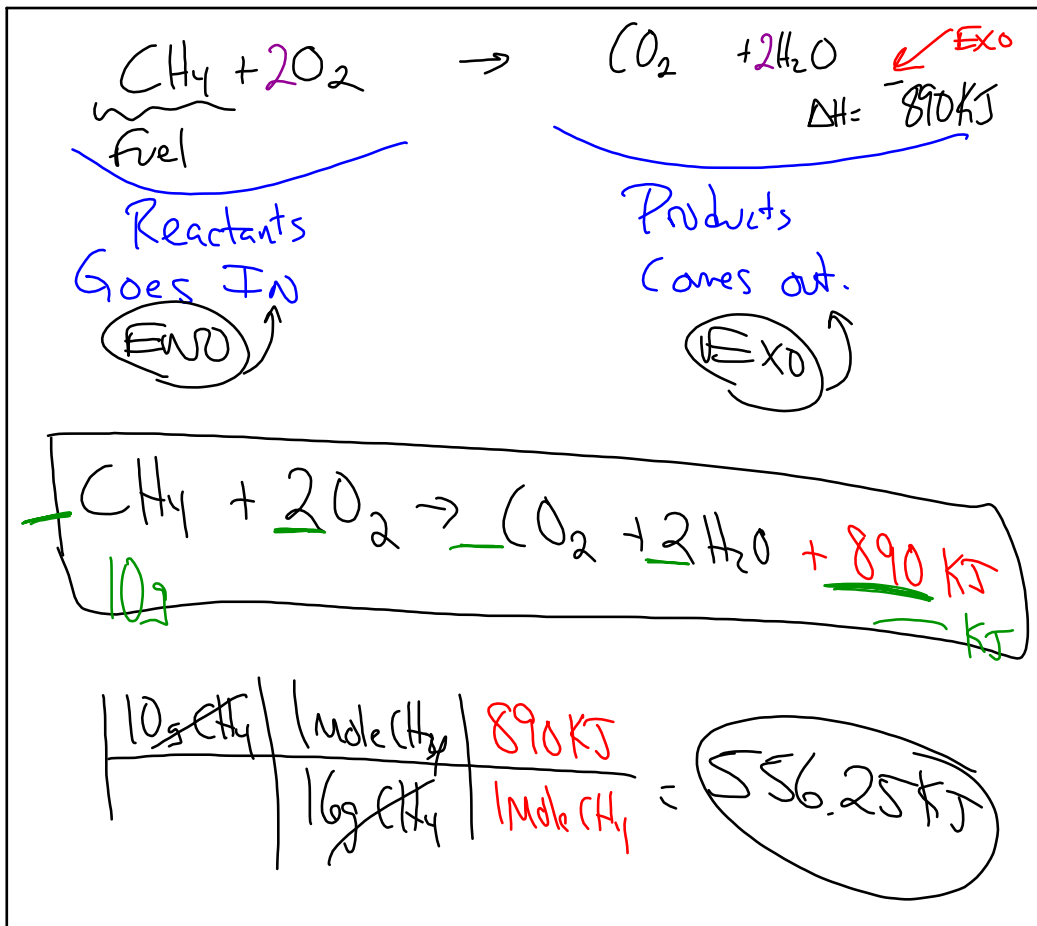
Oct 13-8:18 AM



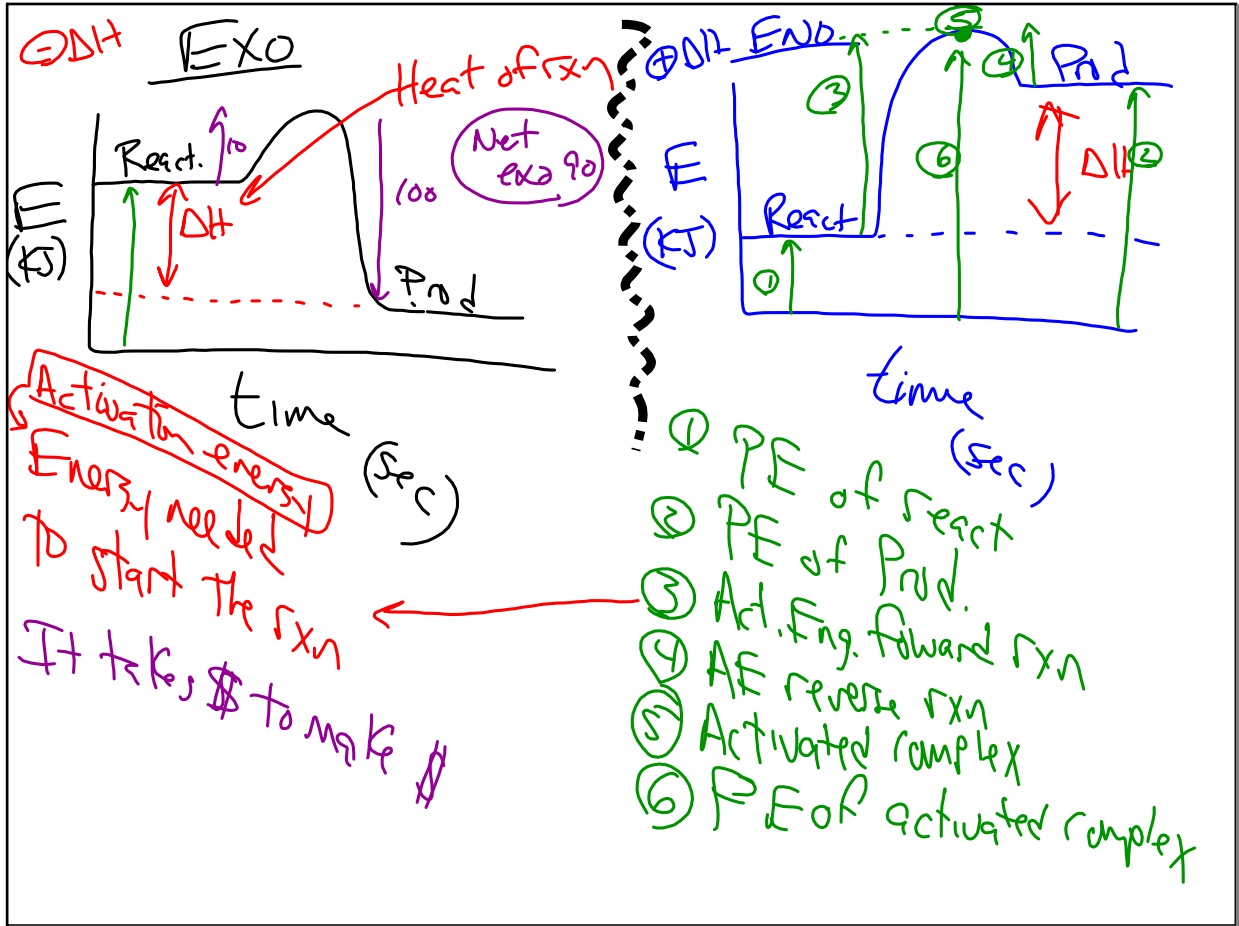
Oct 13-8:20 AM



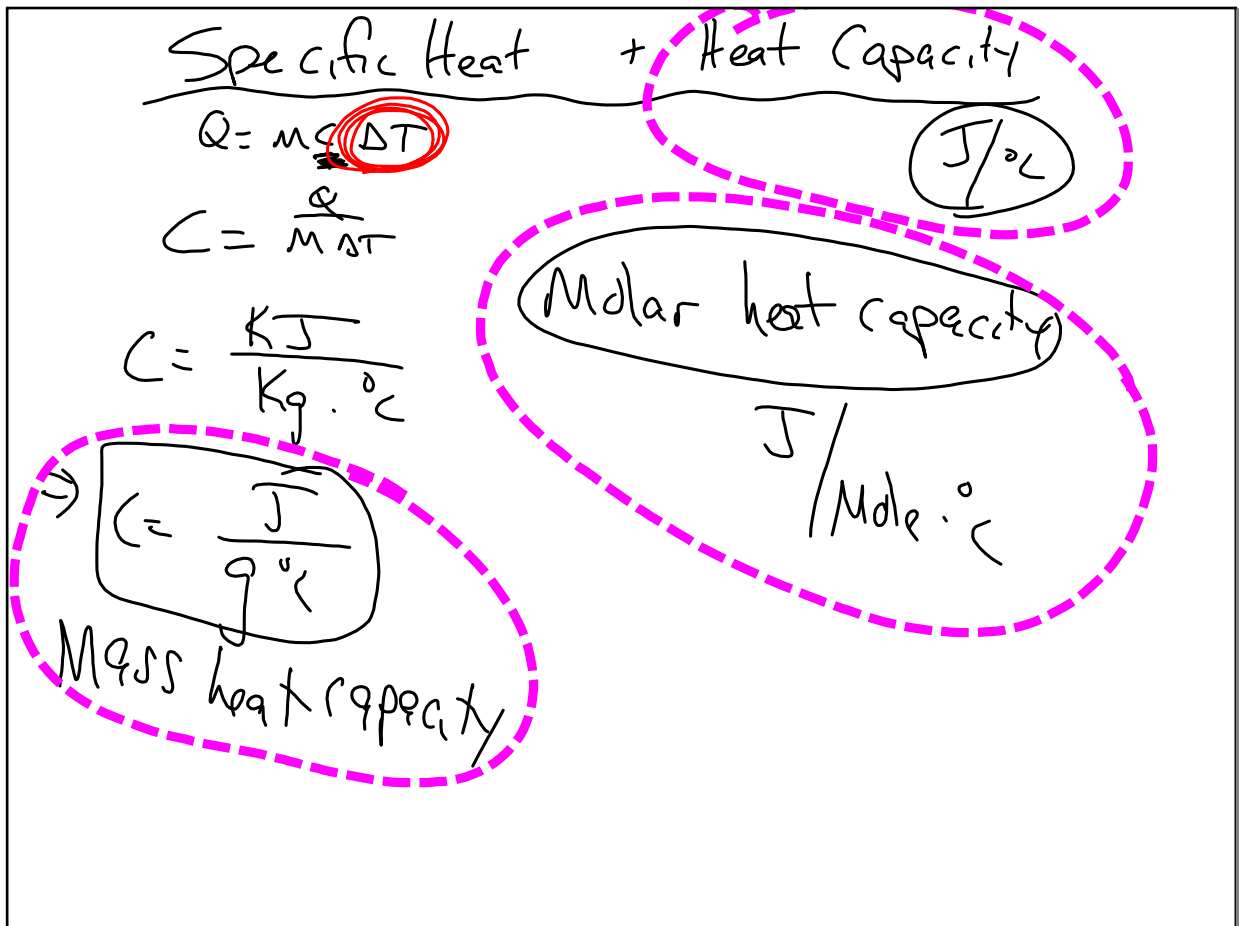
Oct 13-8:28 AM



Oct 13-8:47 AM



Oct 13-8:57 AM



Oct 13-9:08 AM

Warm 250g H<sub>2</sub>O 22°C → 98°C  
Δ = 76°C

Always a Δ T  
change

$C_{H_2O} = \frac{4.18 \text{ J}}{g \cdot ^\circ C}$

4.18 J	250g	76°C	=	79420 J
<del>g.</del>		<del>°C</del>		

79.42 kJ

<u>Molar HC</u>	<u>J/mole °C</u>	
4.18 J	18g	=
<del>g. °C</del>	mole	

$\frac{75.24 \text{ J}}{\text{Mole } ^\circ C}$

Oct 13-9:11 AM

$5 / 44 + 55$

Oct 13-9:17 AM