Gibbs Mental Math

ΔH_{sys} -T $\Delta S_{\text{sys}} = \Delta G_{\text{sys}}$			
ΔH	ΔS	$\Delta \mathbf{G}$	At
– exothermic	+ more disorder	ALWAYS spont.	Any temp
+ endothermic	less disorder	+ NEVER spont.	Any temp
— exothermic	less disorder	spont.	Low Temp
exothermic	less disorder	+ NOT spont.	High Temp
+ endothermic	+ more disorder	spont.	High Temp
+ endothermic	+ more disorder	+ NOT spont.	Low Temp

	Ο > HΔ	O < HA
Δ570	Spontaneous at all T (DG<0)	Spontaneous at highT (when TDS is large)
V 2<0	Spontaneous at 10w T (when TDS is small)	Non-spontaneous at all T (DG>O)

Gibbs Mental Math

$\Delta H_{\text{sys}} - T \Delta S_{\text{sys}} = \Delta G_{\text{sys}}$			
ΔH	ΔS	Δ G	At
– exothermic	+ more disorder	ALWAYS spont.	Any temp
+ endothermic	ess disorder	+ NEVER spont.	Any temp
– exothermic	less disorder	spont.	Low Temp
exothermic	less disorder	+ NOT spont.	High Temp
+ endothermic	+ more disorder	spont.	High Temp
+ endothermic	+ more disorder	+ NOT spont.	Low Temp

	Ο > HΔ	O < HA
Δ570	Spontaneous at all T (DG<0)	Spontaneous at high T (when TDS is large)
D \$<0	Spontaneous at 10w T (when TDS is small)	Non-spontaneous at all T (DG>O)

Gibbs Mental Math

$\Delta H_{\rm sys}$ -T $\Delta S_{\rm sys}$ = $\Delta G_{\rm sys}$			
$\Delta oldsymbol{H}$	ΔS	$\Delta \mathbf{G}$	At
- exothermic	+ more disorder	ALWAYS spont.	Any temp
+ endothermic	less disorder	+ NEVER spont.	Any temp
– exothermic	less disorder	spont.	Low Temp
- exothermic	less disorder	+ NOT spont.	High Temp
+ endothermic	+ more disorder	spont.	High Temp
+ endothermic	+ more disorder	+ NOT spont.	Low Temp

	Ο > HΔ	O < HA
Δ570	Spontaneous at all T (DG<0)	Spontaneous at high T (when TDS is large)
D \$40	Spontaneous at low T (when TDS is small)	Non-spontaneous at all T (DG>O)