

## Gibbs Mental Math

$\Delta H_{\text{sys}} - T\Delta S_{\text{sys}} = \Delta G_{\text{sys}}$			
$\Delta H$	$\Delta S$	$\Delta G$	At...
<b>-</b> exothermic	<b>+</b> more disorder	<b>-</b> ALWAYS spont.	Any temp
<b>+</b> endothermic	<b>-</b> less disorder	<b>+</b> NEVER spont.	Any temp
<b>-</b> exothermic	<b>-</b> less disorder	<b>-</b> spont.	Low Temp
<b>-</b> exothermic	<b>-</b> less disorder	<b>+</b> NOT spont.	High Temp
<b>+</b> endothermic	<b>+</b> more disorder	<b>-</b> spont.	High Temp
<b>+</b> endothermic	<b>+</b> more disorder	<b>+</b> NOT spont.	Low Temp

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