**Properties of Water**

For every temperature, there is a saturation pressure $P\_{sat}$, and for every pressure there is a saturation temperature $T\_{sat}$ .

For example, at sea level water boils at 212$$. So, $T\_{sat}$= 212$$, $P\_{sat}=14.7 PSI$

If the given temperature is lower than the saturation temperature for the given pressure, then you have a subcooled liquid $\*\_{}$

If the given pressure is higher than the saturation pressure for the given temperature, then you have a compressed liquid $\*\_{}$

If the given temperature is higher than the saturation temperature for the given pressure, then you have a superheated vapor.

If the given pressure is lower than the saturation pressure for the given temperature, then you have a superheated vapor.