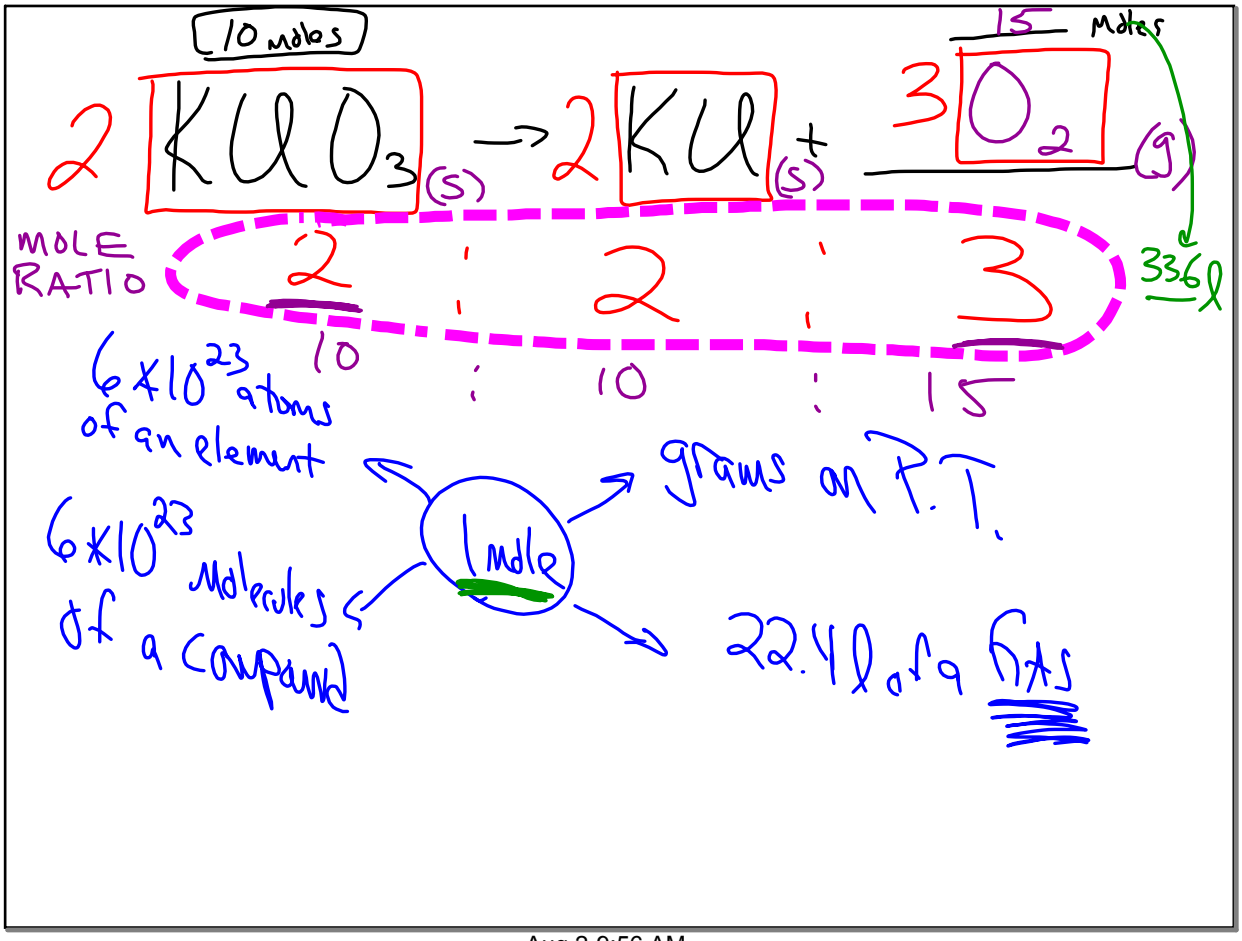
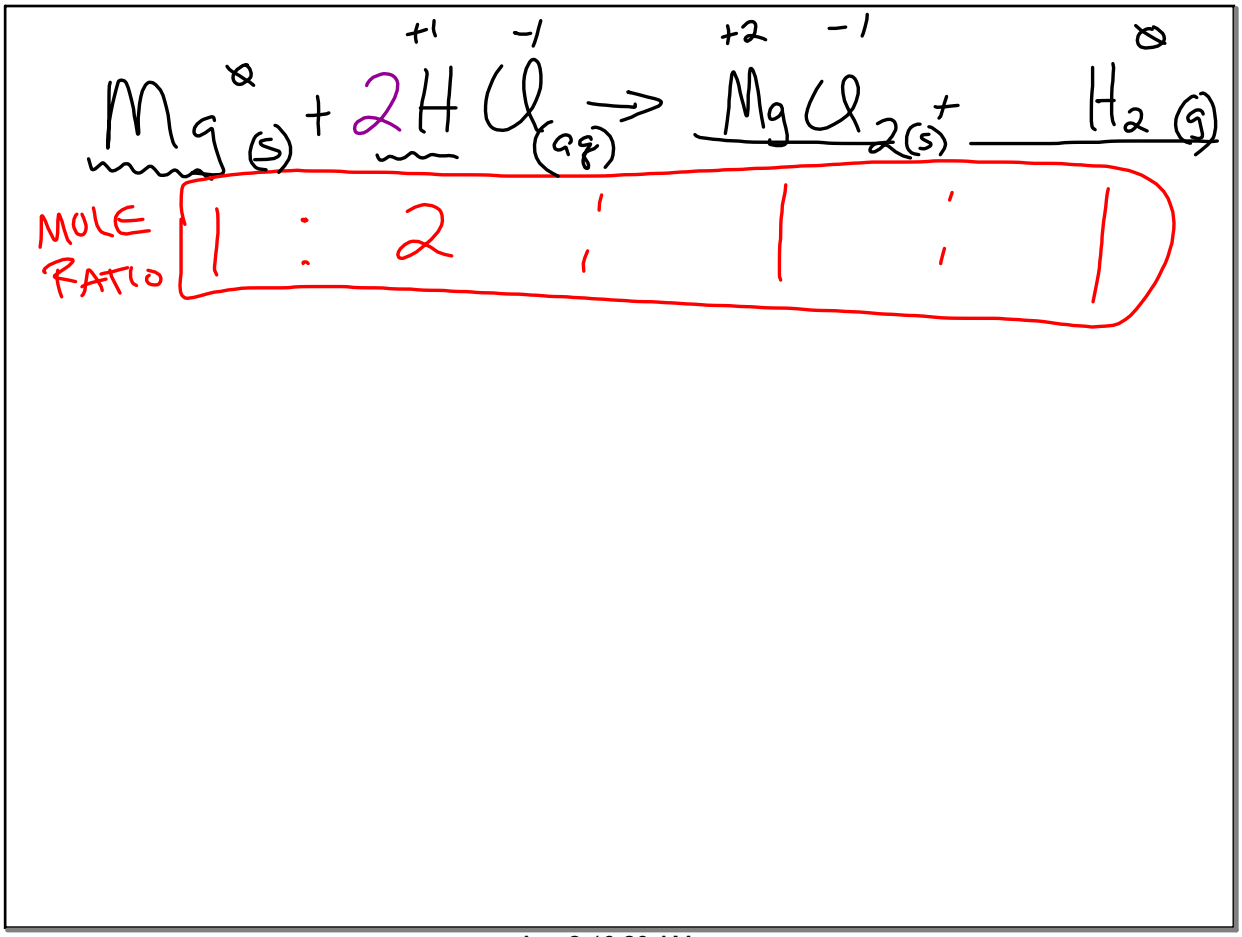
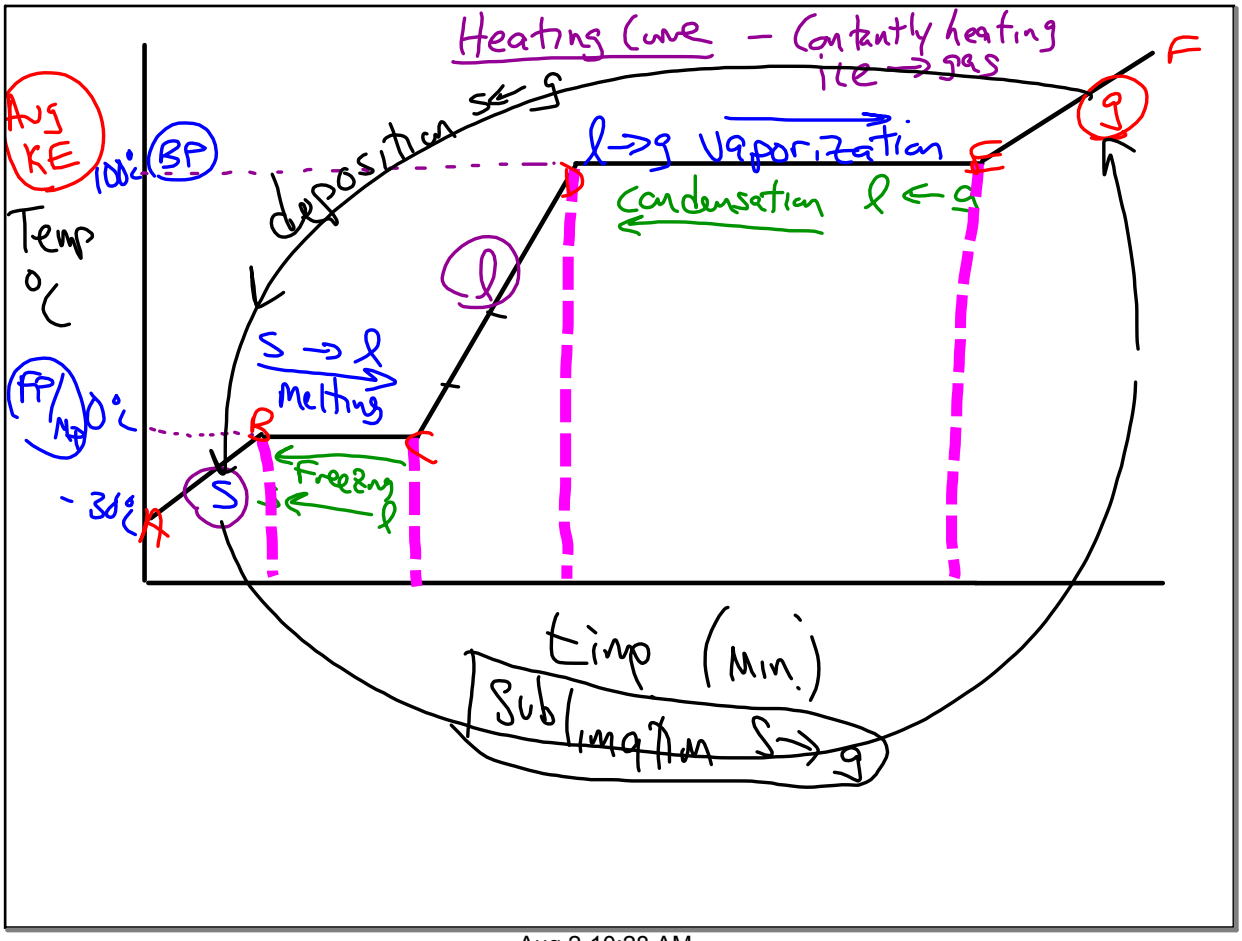


Aug 2-9:56 AM



Aug 2-10:20 AM



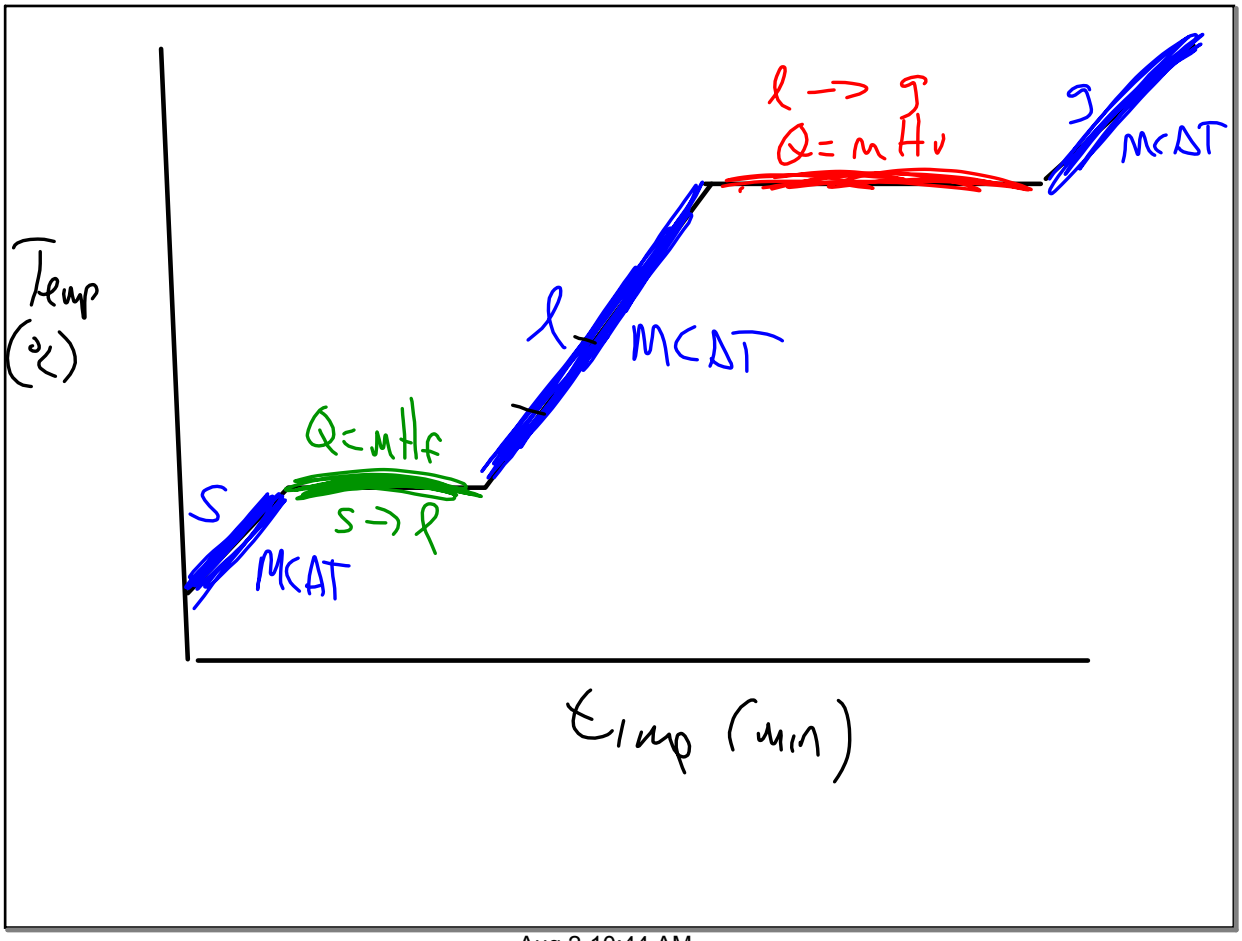
Aug 2-10:28 AM

① $Q = mc\Delta T$ $\overline{AB}$, $\overline{CD}$, $\overline{EF}$
slanted line

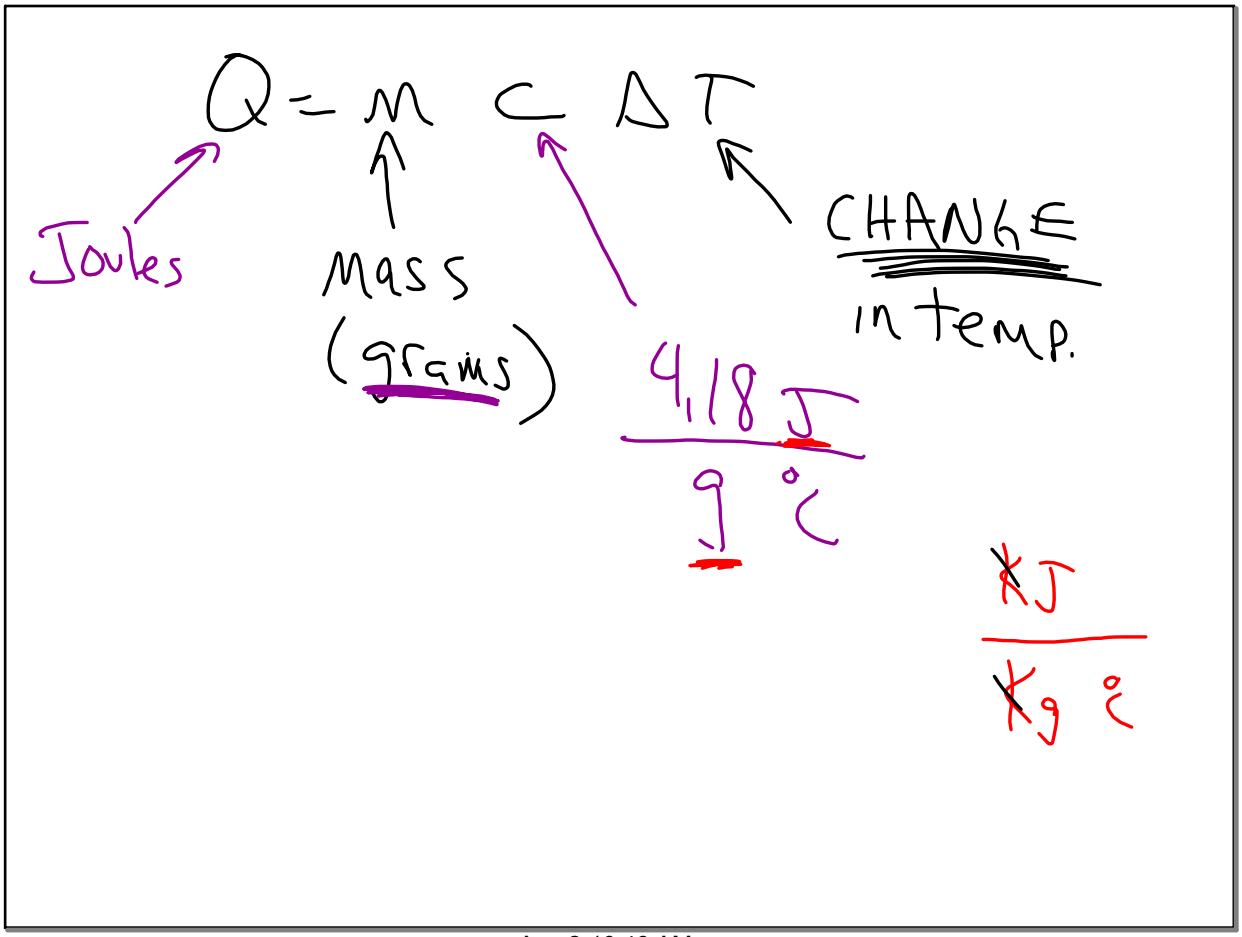
② $Q = mH_f$ – Heat of fusion $\overline{BC}$
$s \rightarrow l$ fuse → solid

③ $Q = mH_v$ → Heat of vaporization $\overline{DE}$

Aug 2-10:40 AM

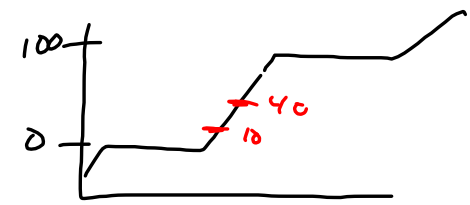


Aug 2-10:44 AM



Aug 2-10:46 AM

① 200g H_2O 10°C → 40°C ___ J



$Q = m c \Delta T$

$Q = (200)(4.18)(30)$

$Q = 25080\ J$

2.5 EE 4

*10

P65 #32

$2.508 * 10^4\ J$

$2.51 * 10^4\ J$

Aug 2-10:50 AM

p65 #34

Water Temp raised 30°C, 3762J

Mass = ?

$Q = m c \Delta T$

$3762 = m (4.18)(30)$

30g

Aug 2-10:57 AM

Gas Laws

→ Weak IMF b/c molecules are spread far apart.

→ Travel in straight lines until hit then change direction.

→ Fills entire container.

→ **Pressure.**

Aug 2-11:07 AM

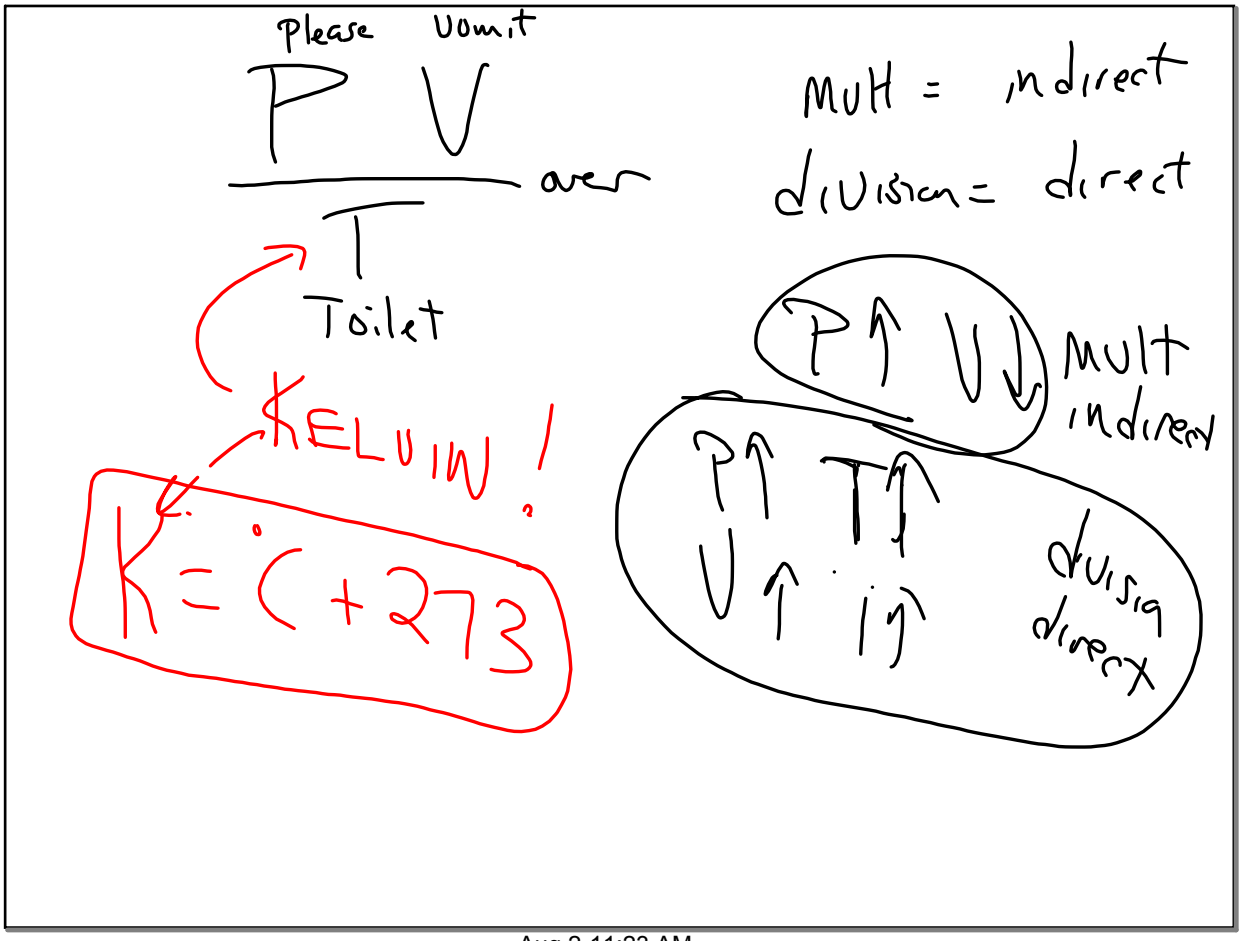
Pressure, Volume, Temperature.

① ↓V ↑P. inversely related. Twist water bottle decrease volume. Cap goes flying off b/c ↑P.

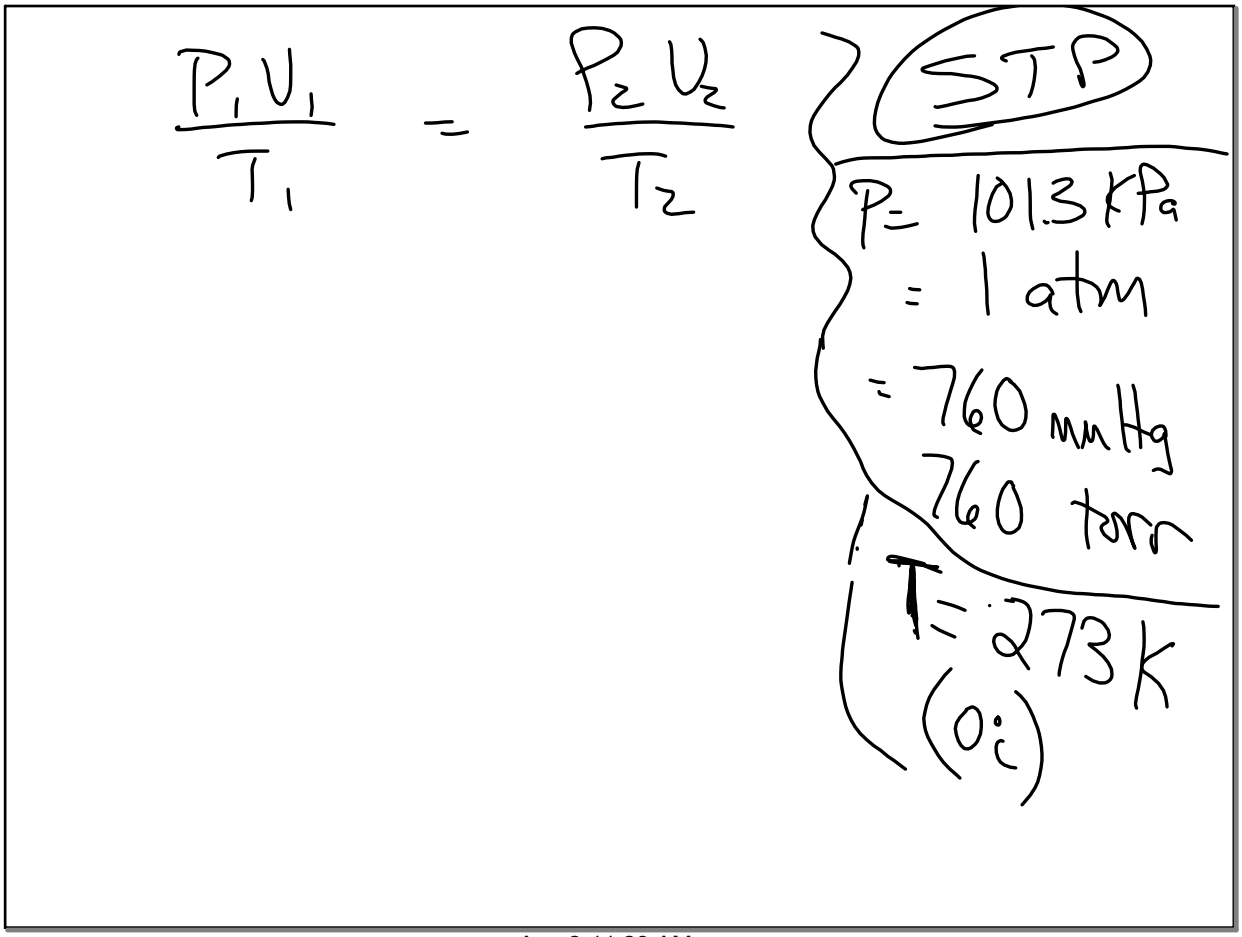
② ↑T ↑P. direct relationship. Soda bottle story

③ ↑T, ↑V

Aug 2-11:13 AM



Aug 2-11:23 AM



Aug 2-11:28 AM

p69 (47) 300ml at STP → Constant Temp.
____ ml, double Pressure

$$\frac{P_1V_1}{T_1} = \frac{P_2V_2}{T_2}$$

$$\frac{(1)(300)}{1} = \frac{2(V_2)}{1}$$

$V_2 = 150\,ml$

Aug 2-11:30 AM

p69 (48)

$273^\circ C = 546\,K$

$$\frac{P_1V_1}{T_1} = \frac{P_2V_2}{T_2}$$

$$\frac{200l}{546\,K} = \frac{100l}{T?}$$

$T = 273\,K$

Aug 2-11:35 AM

Ideal Gas - Best possible gas.

Move. FAST

* Large Volume
* Low Pressure
* High Temp
* NO Mass

Light weight

Aug 2-11:40 AM

Separate items

1. filtration -> Separate by size
2. Evaporation -> different BP's
   Distillation
3. Density
4. Chromatography

Aug 2-11:46 AM