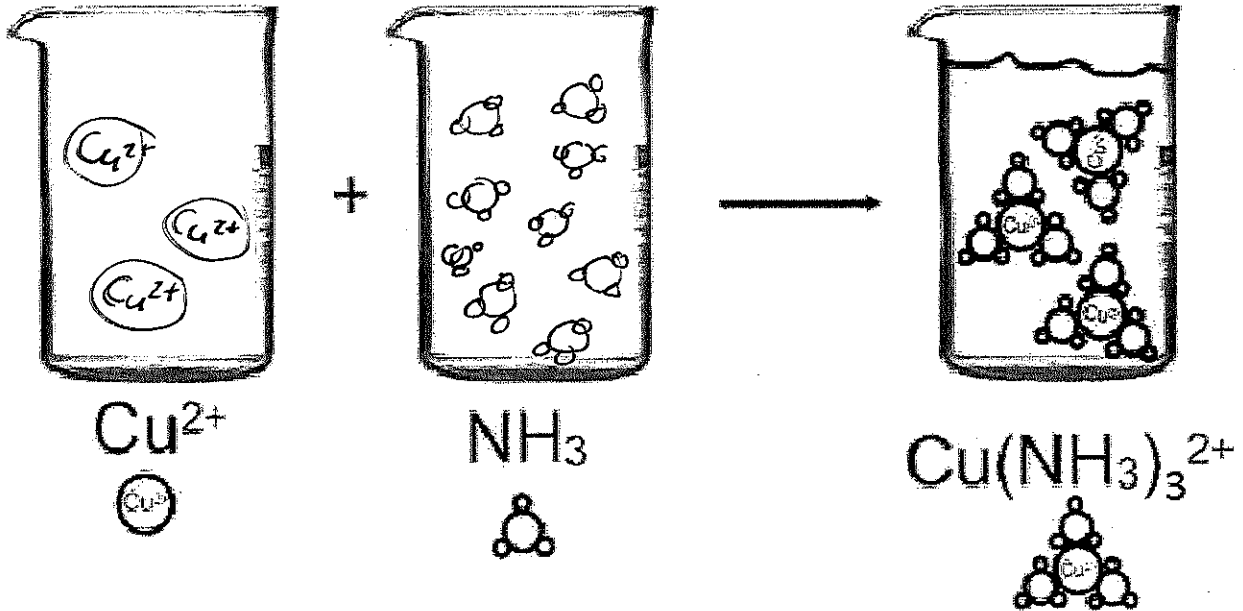


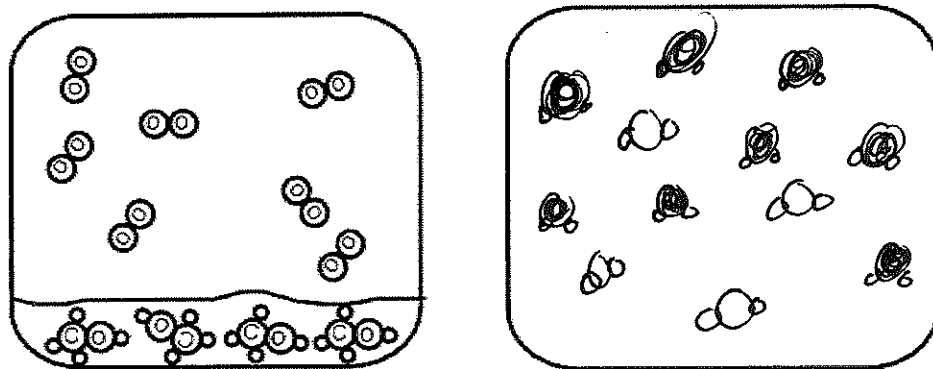
(#7-2)

Limiting and excess calculations - Draw

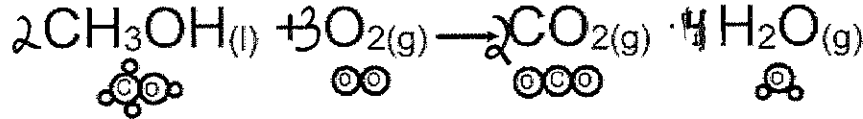
1. Balance and Draw the original quantity of atoms present in each reactant beaker.



2. Balance, complete ISE table, and Draw the products of the following chemical reaction.



Balance!



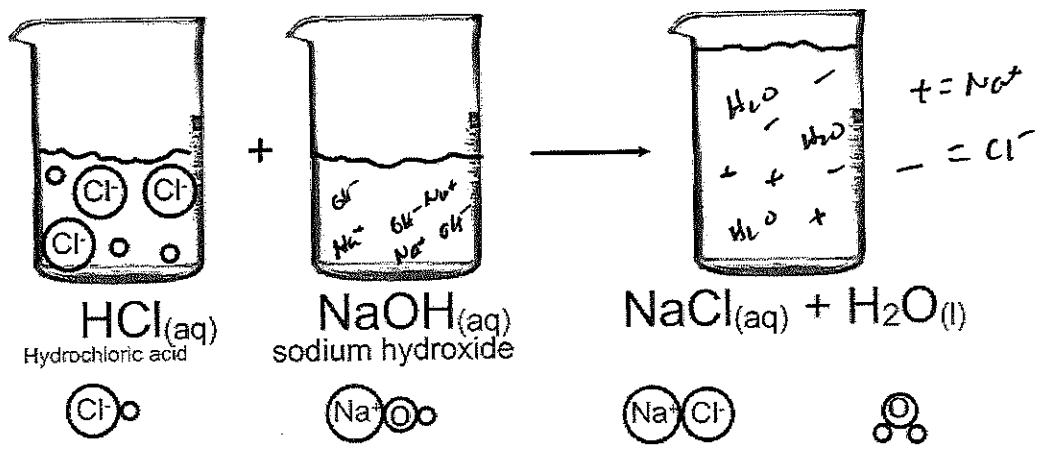
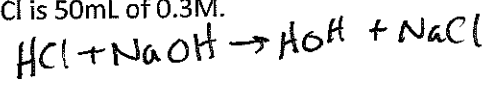
I	4	7		
S	-4	-6	+4	+8
E	0	1		

4. $\frac{3}{2} = 6 \text{ or}$

- What is the limiting reactant? CH_3OH
- Does the pressure in the container increase or decrease or stay the same? (think)

↑ more collisions w/ inside container wall

3. In the beakers below a neutralization reaction is taking place. The HCl is 50mL of 0.3M.
- Re-write and balance the chemical reaction.
 - Draw the NaOH at an equal concentration (NaOH is ionic)
 - Draw the products.



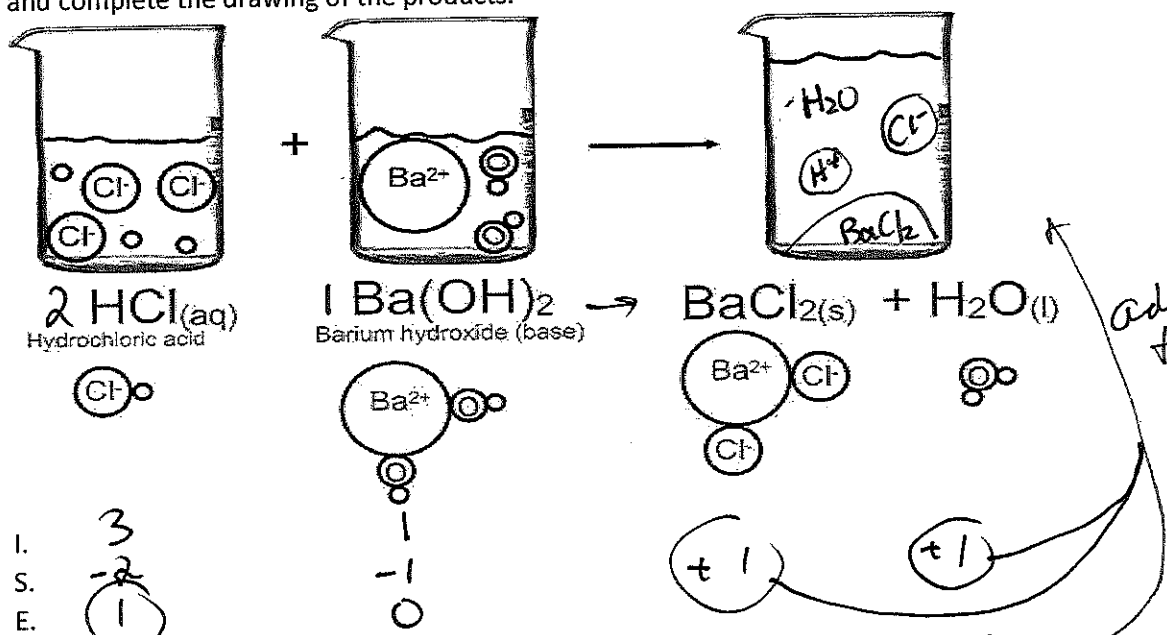
- Which substance is the limiting reactant? $\text{NaOH} + \text{HCl} \leftarrow \text{Both}$
- What is the concentration of each ion before and after the reaction.

	H^+	OH^-	Cl^-	Na^+
Before:	0.3M	0.3M	0.3M	0.3M
After:	-	-	0.15	0.15

$\downarrow \text{H}_2\text{O} \leftarrow$

$M = \frac{\text{mol}}{L}$
 $.3 = \frac{x}{.05}$ $x = 0.015 \text{ mol}$
 $\frac{100 \text{ mL}}{\text{New Volume}} \cdot 0.015 \text{ mol} \rightarrow .1$ $= 0.15 \text{ M}$

4. In the beakers below there is a neutralization and precipitation reaction taking place Balance and complete the drawing of the products.



I.
S.
E.

- Which of these chemicals forms molecules and which form bulk crystals?
- Is the ending beaker acidic or basic?

$\downarrow \text{H}_2\text{O}$ $\downarrow \text{BaCl}_2$

left over acid