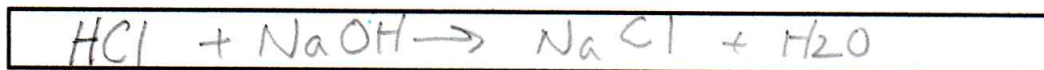


Modeling neutralization of strong and weak acids.

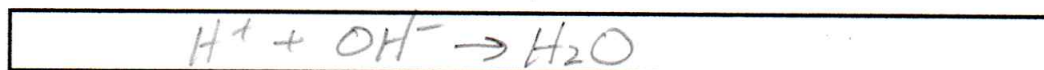
1. Complete the molecular and net ionic reaction for the reaction below.

Hydrochloric acid + Sodium Hydroxide \longrightarrow salt + Water

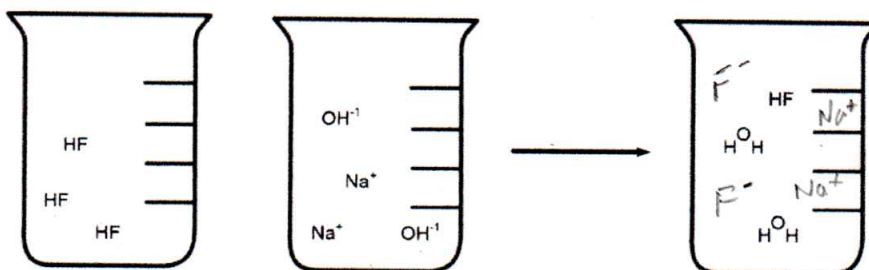
Molecular Equation



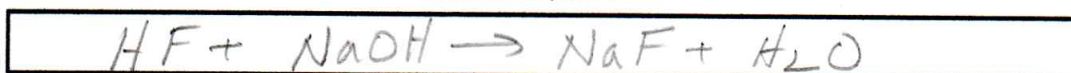
Net ionic Equation



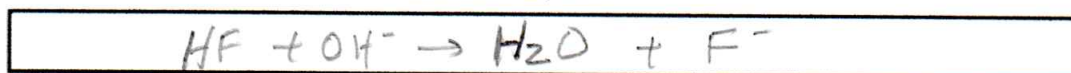
2. Complete the molecular and net ionic reaction for the reaction below based on the beakers. Add the missing Na^+ and F^- ions to the final beaker.



Molecular Equation



Net ionic Equation

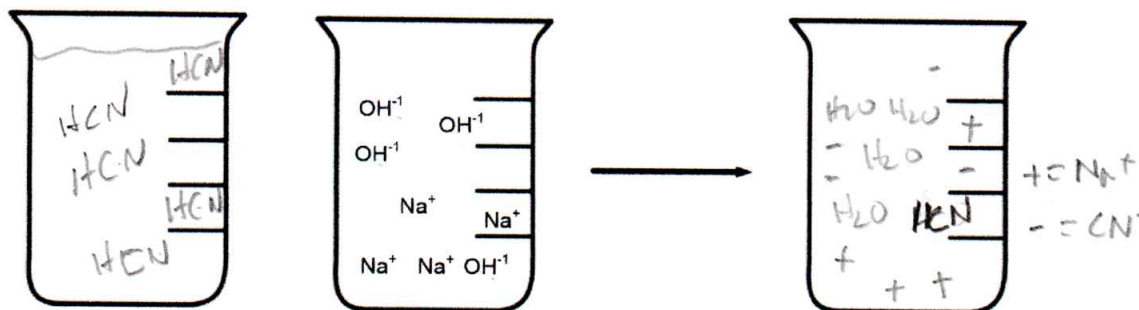


3. Based upon the reactions below complete the beakers.

Excess Hydrocyanic acid is neutralized by potassium hydroxide.

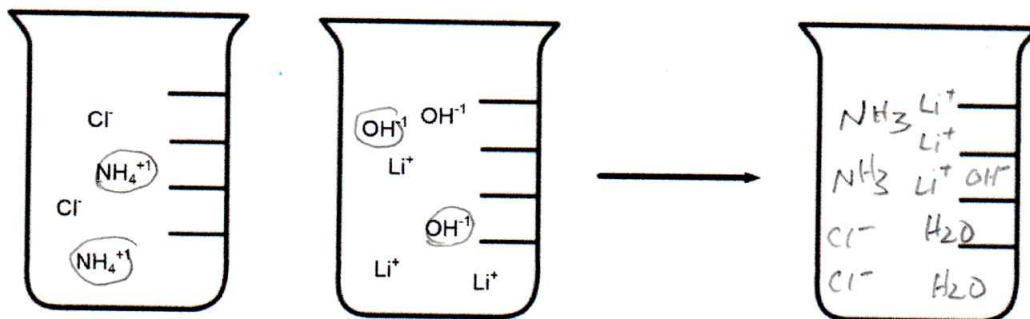
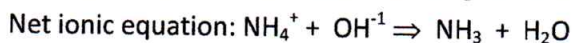
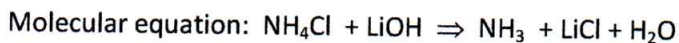
Molecular equation: $\text{HCN} + \text{KOH} \Rightarrow \text{H}_2\text{O} + \text{KCN}$

Net ionic equation: $\text{HCN} + \text{OH}^- \Rightarrow \text{H}_2\text{O} + \text{CN}^-$

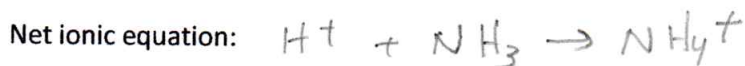
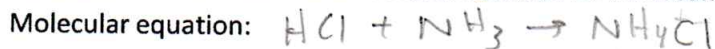


(Complete the beakers above, there is more than 1 right answer to these beakers)

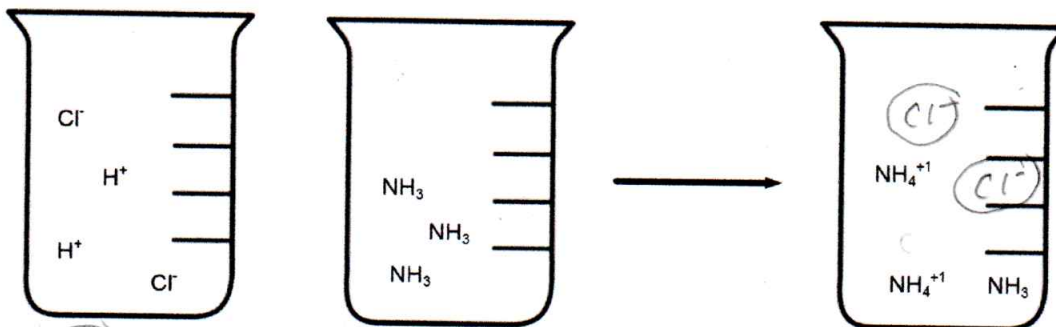
4. Ammonium Chloride reacts with Lithium hydroxide. Complete the beakers below based upon the molecular and net ionic reactions.



5. Write out the molecular and net ionic reaction for the beakers below.



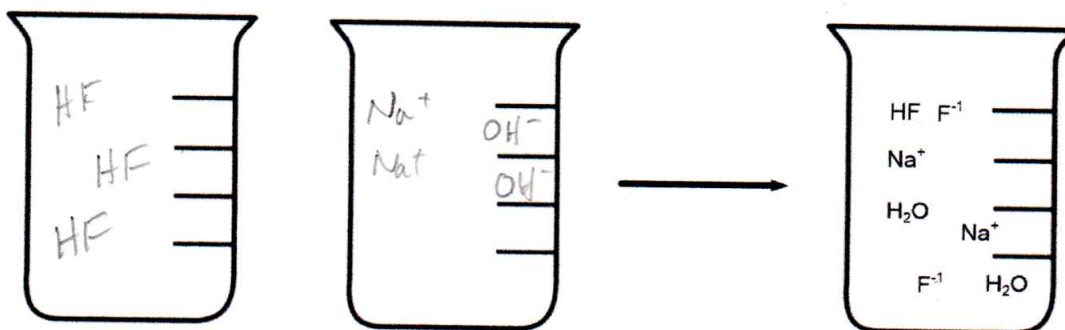
** The final beaker is missing spectator ions, please add.



True or false: Every neutralization reaction MUST make water?

- NO

6. You are given a final beaker, please draw out the original beakers.



What is the salt produced in this reaction?

NaF