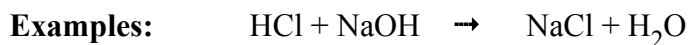


Introduction:

Neutralization Reaction: a reaction where an **acid** and a **base** react to form **water** and a **salt**; can be used to create a pure sample of a salt or to determine the concentration of an acid or a base in a solution.



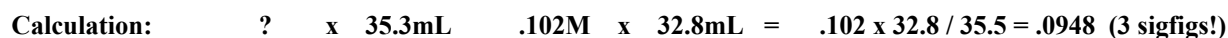
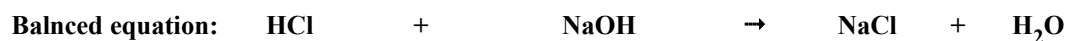
Equivalence point (The point of neutralization in a titration): The amount of acid (or base) that will give one mole of hydrogen (or hydroxide) ions;



In this example: one mole of HCl is one equivalent of HCl

Because moles of H^+ from the acid are equal to moles of OH^- from base, in the balanced equation, we can use the dilution equation to solve for unknown molarities.

$$M_1 V_1 = M_2 V_2$$



Objectives: 1. Determine the M_{HCl} for each titration

2. Average three molarities

3. Have me sign

Data:

Titration	HCl	NaOH	Molarity
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<p>1</p>	<p>Vol_F HCl = _____ Vol_I HCl = - _____ Vol HCl used = _____</p>	<p>Vol NaOH_F = _____ Vol NaOH_I = - _____ Vol NaOH used = _____</p>	<p>M₁ HCl = _____</p>
<p>2</p>	<p>Vol_F HCl = _____ Vol_I HCl = - _____ Vol HCl used = _____</p>	<p>Vol NaOH_F = _____ Vol NaOH_I = - _____ Vol NaOH used = _____</p>	<p>M₂ HCl = _____</p>
<p>3</p>	<p>Vol_F HCl = _____ Vol_I HCl = - _____ Vol HCl used = _____</p>	<p>Vol NaOH_F = _____ Vol NaOH_I = - _____ Vol NaOH used = _____</p>	<p>M₃ HCl = _____</p>
<p>Average Molarity of HCl = _____</p>			