

TITRATION BETWEEN A STRONG ACID AND A STRONG BASE

NAME _____

SECTION _____

1. Qualitatively, describe how the pH of a solution of a strong acid changes when a solution of strong base is added to it.
 - a. A titration is performed by adding 0.600 M KOH to 40.0 mL of 0.800 M HCl.
 - i. Calculate the pH before addition of any KOH.
 - ii. Calculate the pH after the addition of 5.0 mL of the base.

Calculate the pH after the addition of 20.0 mL of the base.

Calculate the pH after the addition of 40.0 mL of the base.

Calculate the pH after the addition of 52.0 mL of the base.

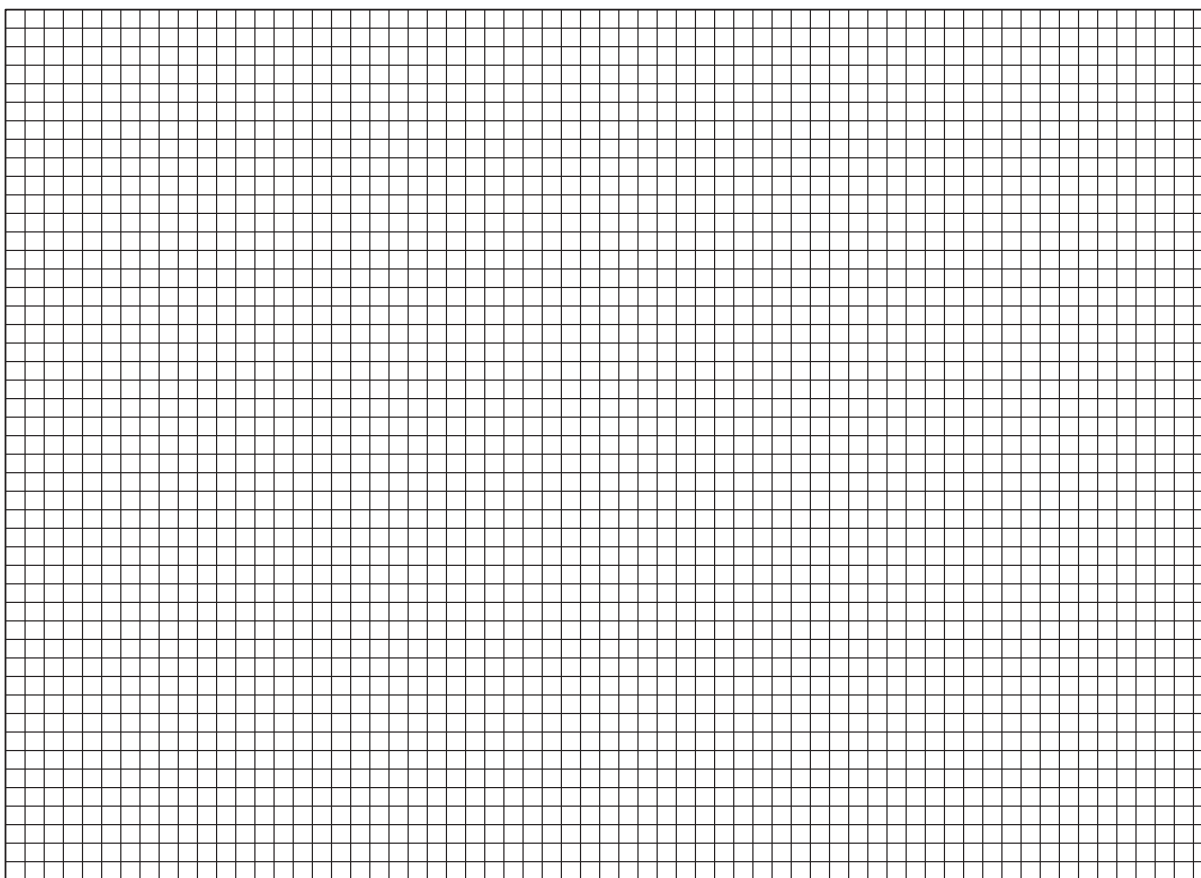
Calculate the pH after the addition of 53.0 mL of the base.

2. Using the designated space below sketch the titration curve for each of the following cases.

a. 50.0 mL of 0.100 M KOH is added to 50.0 mL of 0.100 M HCl.

b. 50.0 mL of 0.00100 M NaOH is added to 50.0 mL of 0.00100 M HCl.

Plot both curves on the graph below.



c. Describe similarities and differences of the two curves.