

### Quiz 14.5 – Strong Acid/Base Titrations

Name: \_\_\_\_\_

These questions concern titrating a solution of HCl with NaOH. 25.00 *ml* of the HCl solution with unknown concentration are placed in an Erlenmeyer flask, and a burette is filled with a 0.125 *M* solution of NaOH

#### Question 1

NaOH is added slowly while the *pH* is monitored. How will you know when the equivalence point of the titration has been reached?

#### Question 2

The equivalence point is reached after 34.65 *ml* of the base have been added.

What was the initial acid concentration?

#### Question 3

Now that you know the initial concentration, calculate what the *pH* should have been before any base was added

#### Question 4

What will the *pH* be after you have added 34.40 and 34.90 *ml* of the NaOH solution

#### Question 5

Sketch the titration curve, noting the pH at the most important points

*Slaveships*

By Lucille Clifton

loaded like spoons  
into the belly of Jesus  
where we lay for weeks for months  
in the sweat and stink  
of our own breathing  
Jesus  
why do you not protect us  
chained to the heart of the Angel  
where the prayers we never tell  
and hot and red  
as our bloody ankles  
Jesus  
Angel  
can these be men  
who vomit us out from ships  
called Jesus Angel Grace of God  
onto a heathen country  
Jesus  
Angel  
ever again  
can this tongue speak  
can these bones walk  
Grace Of God  
can this sin live