$\frac{1.5}{5.4} = 1.4$ Factor conversion

PROCESSING THE DATA

1. Use your printed graph and data table to confirm the volume of NaOH titrant you recorded *before* and *after* the largest increase in pH values upon the addition of 1 drop of NaOH solution.
2. Determine the volume of NaOH added at the equivalence point. To do this, add the two NaOH values determined above and divide by two.
3. Calculate the number of moles of NaOH used.
4. See the equation for the neutralization reaction given in the introduction. Determine the number of moles of HCl used.
5. Recall that you pipeted out 10.0 mL of the unknown HCl solution for the titration. Calculate the HCl concentration.

DATA AND CALCULATIONS

Concentration of NaOH	0.1 M	M
NaOH volume added before largest pH increase	4.7502 mL	mL
NaOH volume added after largest pH increase	6.65 mL	mL

Volume of NaOH added at equivalence point	5.8506 mL	mL
Moles NaOH $n = CV$	0.000665 mol	mol
Moles HCl	0.000665 mol	mol
Concentration of HCl	0.0147 mol/L	mol/L
Average [HCl]		M