Name: $\qquad$

## Chemistry: Partial Neutralization

Directions: Solve the following problems. Show your work and include units on your answers.

1. $\quad$ 7.35 L of 0.411 M HI were mixed with 10.26 L of 0.289 M NaOH . Find the pH of the resulting solution.
2. $\quad 68.1 \mathrm{~mL}$ of $2.75 \mathrm{M} \mathrm{HNO}_{3}$ were mixed with 61.0 mL of 3.11 M KOH . Find the pH of the resulting solution.
3. $\quad$ 13.8 L of 4.28 M sulfuric acid were mixed with 40.1 L of 2.96 M cesium hydroxide. Find the pH of the resulting solution.
4. $\quad 27.2 \mathrm{~L}$ of 3.81 M hydrobromic acid were mixed with 72.8 L of sodium hydroxide to produce a solution having a pH of 3.11. What was the concentration of the base?
