pH and Neutralization Worksheet

Name:

*Find the requested quantities in the following problems.*

**pH = -log[H+] pOH = -log[OH-] pH + pOH = 14.00**

1. What is the pH and pOH of a solution of HBr with a concentration of 4.5 × 10-6M?
2. What is the pH and pOH of a RbOH solution with a concentration of 8.42 × 10-8M?
3. What is the pH and pOH of a 5.32 × 10-3 M solution?
4. What is the pH and pOH of a 2.85 × 10-12M solution?
5. What is the pH and pOH of a 1.00 × 10-7 M solution?

**MAVA = MBVB**

1. If it takes 54.4 mL of 0.111 M NaOH to neutralize 125 mL of an HCl solution, what is the concentration of the HCl?
2. If it takes 25.4 mL of 0.0500 M HCl to neutralize 345 mL of NaOH solution, what is the concentration of the NaOH solution?
3. If it takes 50.0 mL of 0.500 M KOH solution to completely neutralize 125 mL of HBr solution, what is the concentration of the HBr solution?
4. If it takes 62.6 mL of 0.0480M HNO3 to neutralize 222 mL of LiOH solution, what is the concentrations of the LiOH solution?
5. Can I titrate (neutralize) a solution of an unknown concentration with another solution of unknown concentration and still get a meaningful answer? Explain your answer in a few sentences.