1. If the pH of an aqueous solution is 8.23, what are the hydrogen- and hydroxide-ion concentrations of this solution?
2. If 7.40 grams of Ca(OH)2 is dissolved in sufficient water to make 100mL of solution, what is the hydroxide-ion concentration of this solution?
3. What is the hydroxide-ion concentration, the pH, and the hydrogen-ion concentrations of solutions containing 15.0 grams of the following substances in 1.00L solution:

\*First, write the balanced equations for the reactions that occur when the oxides are dissolved in water.

Substance Molarity of Substance [OH-] pH [H3O+]

CaO

Na2O

1. If 50mL of 0.50 M HCl solution is added to 75mL of 0.20 M Ca(OH)2 solution, will the solution be neutral, acidic, or basic? Write a balanced chemical equation for the reaction and justify your answer?
2. Complete and balance. Predict oxide to be acidic, basic, or amphoteric.

Zn + O2 🡪

Ga + O2 🡪

As4 + O2 🡪

Li + O2 🡪