

Quiz 3

Name _____

- 1) Indicate whether each of the following when dissolved in water will make an acidic, basic, or neutral solution, or if there is not enough information given in the formula alone?

KClO₄ _____

LiBr _____

SO₃(g) _____

NaHSO₄ _____

NH₄Cl _____

Na₂SO₄ _____

NH₄ClO₂ _____

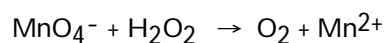
CaO _____

NH₄ClO₄ _____

- 2) At 50 °C where $K_w = 5.47 \times 10^{-14}$., what is the pOH if the pH is 7.00? 2) _____

- 3) What mass of barium oxide (153.33 g/mol) is needed to prepare exactly 4 L of a solution that has a pH of 12.500? 3) _____

- 4) A 5.000- mL aqueous sample containing hydrogen peroxide was diluted to approximately 25 mL and analyzed by titration with permanganate as shown in the following unbalanced reaction occurring in acidic solution. The sample required 42.8 mL of 0.0175 M permanganate to reach the end point. What is the concentration of hydrogen peroxide in the original 5.00 mL sample? 4) _____



- 5) What is the pH of a 0.153 M solution of hypochlorous acid ($K_a = 3.5 \times 10^{-8}$)? 5) _____