1. (3 points) What is the oxidation number of the underlined species in each of the following species?
   a. HClO₄ ________
   b. Fe₂O₃ ________
   c. PO₄³⁻ ________

2. (2 points) A particular substance has a molar mass of 100 g/mol. How many grams of this substance would have to be used to make 1.0 L of a 0.5 M solution?

3. (2 points) A particular substance has a molar mass of 100 g/mol. How many grams of this substance would have to be used to make 0.50 L of a 2.0 M solution?

4. (2 points) A particular substance has a molar mass of 100 g/mol. How many moles of the substance are contained in 500 mL of a 0.400 M solution?

5. (2 points) What is the molarity of Cl⁻ in a solution that is 0.50 M AlCl₃?
CHEM 1364  
Thursday Quiz #8  
March 14, 2013  
Spring 2013 (Buckley)

When finished, place this quiz face down on your desk and quietly leave. Have a good Spring Break.

1. (3 points) What is the oxidation number of the underlined species in each of the following species?
   a. HClO₃ ________  
   b. Fe₂O₃ ________  
   c. PO₃³⁻ ________

2. (2 points) A particular substance has a molar mass of 200 g/mol. How many grams of this substance would have to be used to make 1.0 L of a 2.0 M solution?

3. (2 points) A particular substance has a molar mass of 200 g/mol. How many grams of this substance would have to be used to make 0.50 L of a 4.0 M solution?

4. (2 points) A particular substance has a molar mass of 200 g/mol. How many moles of the substance are contained in 500 mL of a 0.400 M solution?

5. (2 points) What is the molarity of Cl⁻ in a solution that is 1.50 M AlCl₃?
When finished, place this quiz face down on your desk and quietly leave. Have a good Spring Break.

1. (3 points) What is the oxidation number of the underlined species in each of the following species?
   a. HClO₂  
   b. Fe₂O₃  
   c. CO₃²⁻  

2. (2 points) A particular substance has a molar mass of 300 g/mol. How many grams of this substance would have to be used to make 1.0 L of a 0.5 M solution?

3. (2 points) A particular substance has a molar mass of 300 g/mol. How many grams of this substance would have to be used to make 0.50 L of a 2.0 M solution?

4. (2 points) A particular substance has a molar mass of 300 g/mol. How many moles of the substance are contained in 500 mL of a 0.600 M solution?

5. (2 points) What is the molarity of Cl⁻ in a solution that is 2.0 M AlCl₃?
When finished, place this quiz face down on your desk and quietly leave. Have a good Spring Break.

1. (3 points) What is the oxidation number of the underlined species in each of the following species?
   a. \( \text{HBrO}_4 \) ________
   b. \( \text{Fe}_2\text{O}_3 \) ________
   c. \( \text{PO}_3^{3-} \) ________

2. (2 points) A particular substance has a molar mass of 400 g/mol. How many grams of this substance would have to be used to make 1.0 L of a 0.5 M solution?

3. (2 points) A particular substance has a molar mass of 400 g/mol. How many grams of this substance would have to be used to make 0.50 L of a 2.0 M solution?

4. (2 points) A particular substance has a molar mass of 400 g/mol. How many moles of the substance are contained in 500 mL of a 0.400 M solution?

5. (2 points) What is the molarity of Cl\(^-\) in a solution that is 2.50 M AlCl\(_3\)?