Assignment 2

Due: 4/26/2017

Week 4 - Unit 4

1. The reaction is described by the equation: 3Na + AlCl₃ → Na₃AlCl₆. Are the products expected to be formed? Explain.
2. Calculate the molar mass of NaCl.
3. Write the balanced chemical equation for the reaction: 2H₂ + O₂ → 2H₂O.
4. What is the mass of 2.5 moles of CO₂?
5. Describe the reaction of H₂ and Cl₂ to form HCl.
6. What is the energy change in the reaction: 2H₂ + O₂ → 2H₂O?
7. Write the balanced equation for the combustion of methane (CH₄).
8. How many moles of O₂ are needed to react with 1 mole of CH₄ to form CO₂ and H₂O?
9. Calculate the mass of 0.5 moles of FeCl₃.
10. What is the energy change in the reaction: 2H₂ + O₂ → 2H₂O?