

Homework #8

Name: _____

Student ID: _____

Chem 192 – Spring 2010
Cañada College

Total Possible Points: 10
Due: March 23rd

Suggested chapter 8 problems: 2, 4, 8, 10, 14, 16, 18, 20

1. (one point) Write a balanced equation for this reaction: $\text{Ag} + \text{H}_2\text{S} + \text{O}_2 \rightarrow \text{Ag}_2\text{S} + \text{H}_2\text{O}$

2. (two points) Aqueous solutions of ammonium chloride and silver nitrate are mixed together and these clear solutions turn cloudy white. A reaction has occurred. Decide what products are likely to have formed and write a balanced equation to represent the reaction.

3. (½ point) Consider the reaction: $\text{C} + \text{O}_2 \rightarrow \text{CO}_2 + 393 \text{ kJ}$. When two moles of carbon react... (circle the correct answer below)

- A. 393 kJ of energy is released
- B. 393 kJ of energy is absorbed

- C. 786 kJ of energy is released
- D. 786 kJ of energy is absorbed

4. (½ point) Which is endothermic? (circle the correct answer below)

- A. Freezing water
- B. Burning wood

- C. Condensing water vapor
- D. Melting ice

5. (two points) The following questions refer to a reaction in which iron (III) oxide and carbon monoxide react to produce carbon dioxide and iron.

(a) Write a balanced chemical equation for the reaction.

(hint: there are a total of **five** atoms in each iron (III) oxide molecule)

(b) When one mole of iron (III) oxide is consumed, how many moles of carbon monoxide are consumed?

(c) When one mole of iron (III) oxide is consumed, how many moles of iron are produced?

(d) When two moles of carbon dioxide are produced, how many moles of iron (III) oxide are consumed?

6. (four points) Name the following compound and balance the equation.

(1) _____ (3) _____

(2) _____ (4) _____

