**Solubility Curves**

Name(s):

Date:

Lab Section:

**DATA**

Please attach copies of your Excel spreadsheets and graph to this worksheet when you turn it in to your instructor.

1. What were the equation and R-squared value for your linear trendline? For your second order polynomial trendline?

2. What was your unknown number? What was the concentration of your unknown?

**QUESTIONS**

1. Using your graph, tell if each of these solutions would be unsaturated, saturated, or supersaturated.

 A. 110 g of KNO3 in 100 g of H2O at 40 °C

 B. 60 g of KNO3 in 100 g of H2O at 70 °C

 C. 140 g of KNO3 in 200 g of H2O at 60 °C

2. According to your graph, will 50 g of KNO3 completely dissolve in 100 g of H2O at 50 °C? Explain.

3. Using your trendline equation, how many grams of KNO3 will dissolve in 100 g of H2O at 30 °C?

4. Compare your solubility graph to the literature. How close were the lines to each other? Explain any regions of error and site your literature source. Please print out a copy of the literature solubility graph and attach it to this worksheet when you turn it in to your instructor.