

## 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  $\text{KNO}_3$  in 100 g of  $\text{H}_2\text{O}$  at 40 °C
  - B. 60 g of  $\text{KNO}_3$  in 100 g of  $\text{H}_2\text{O}$  at 70 °C
  - C. 140 g of  $\text{KNO}_3$  in 200 g of  $\text{H}_2\text{O}$  at 60 °C
  
2. According to your graph, will 50 g of  $\text{KNO}_3$  completely dissolve in 100 g of  $\text{H}_2\text{O}$  at 50 °C? Explain.

