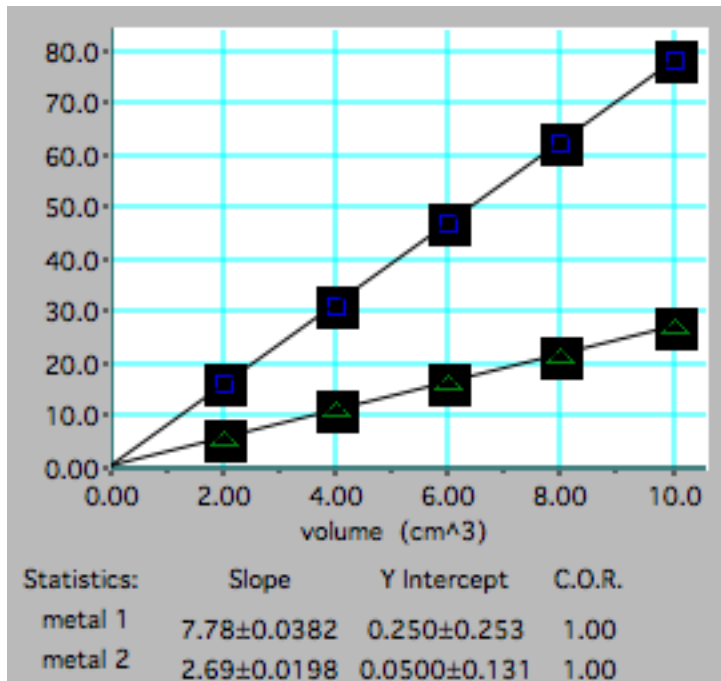


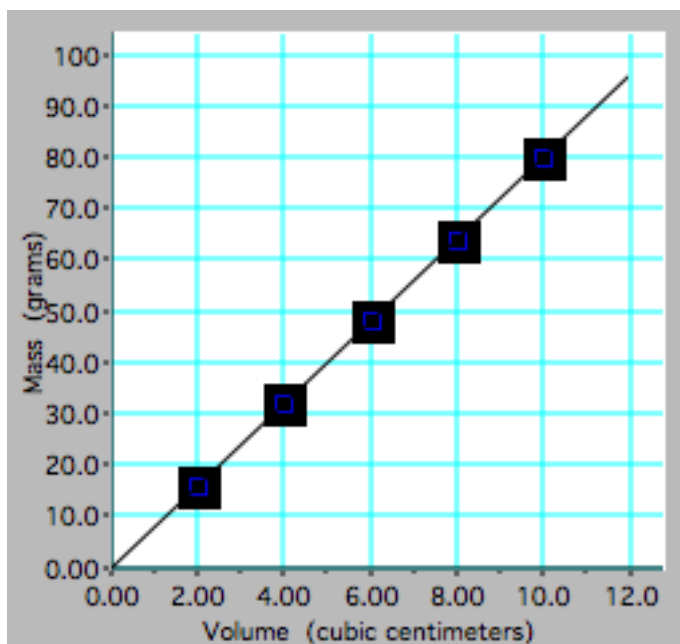
## Unit 6 – Exercise 3 - Material Identification

Given this graph of **experimental** mass vs. volume data, answer questions 1-4.



1. Discuss the physical meaning of the slope of the lines on this graph.
2. Why do the data for metal 1 produce a graph with a different slope from the graph representing metal 2?
3. What is the physical meaning of the y-intercept of this graph?
4. Use a reference source such as the Internet or a textbook to find what elements the metals tested could be. Explain your answers.

Given the following mass vs. volume graph, answer questions 5 and 6



5. What is the density of this material?

6. What would be the volume of a 200. g sample of this material?