

Chemistry 11

Name:

Activity 1.3 - Graphing Relationships

1. Several samples of pure tin were weighed and placed into a graduated cylinder filled with water to measure their volume by water displacement. Show the relationship between the mass and volume of the samples using a line graph. The volume should be on the x-axis and the mass should be on the vertical of y-axis.

Data Table

Volume (cm ³)	Mass (g)
0.53	2.41
0.72	3.27
1.05	4.77
1.21	5.49
1.36	6.17
1.60	7.26
1.95	8.85
2.00	9.08

- a. What is the slope of the line? Make sure you include the units in your answer.
- b. What is the equation of the line?
- c. What mass would you expect for a 1.50 cm³ sample of pure tin?
- d. What mass would you expect for a 0.20 cm³ sample of pure tin?