Name: _____ Date: _____

Chapter 9 Gifted and Enrichment

1. Some linear relations are a series of discrete points when graphed. Other linear relations appear as a straight line when graphed. Identify two real-life situations that are appropriate to graph each way and explain why. Be careful not to use as your examples data that might be better graphed using a different type of graph, such as a bar graph, or data that are probably not linear relations.	**2.** Substance A has a mass of 1.25 g per cubic centimetre of volume. **a)** Create a table of values and then a graph that shows the mass of Substance A for volumes of 1 cm^3 to 20 cm^3. **b)** Research to find what mass per volume is.
3. The volume of a 95% acid solution is 25 cm^3. To reduce the 95% acid solution to a 50% acid solution, 2.25 cm^3 of water are added each second to the solution. **a)** What will the volume of the 50% acid solution be? **b)** Create a table of values to determine the time it takes for the 95% acid solution to become a 50% acid solution.	**4.** In the early 2000's, people were encouraged to drink more water for their health. Many companies bottled purified or natural spring water in recyclable plastic bottles to make it more easily available for consumers. Suppose that 23 million people in Canada decide to drink one bottle of water per day. Create a graph that shows the number of empty plastic bottles this would produce over a year. Use these data to make the case for using reusable bottles rather than recyclable bottles for water.