Sci 9 Graphing Practice Name: \_\_\_\_\_\_\_\_\_\_\_\_\_

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| --- | --- | --- |
| **Depth in meters** | **Number of Bubbles / minute Plant A** | **Number of Bubbles / minute Plant B** |
| **2** | **29** | **21** |
| **5** | **36** | **27** |
| **10** | **45** | **40** |
| **16** | **32** | **50** |
| **25** | **20** | **34** |
| **30** | **10** | **20** |

 **PRACTICE 1**: Using the following data, answer the questions below. Plants were submerged under water and the number of bubbles arising from the leaves were counted. 1. How many oxygen bubbles are produced by “plant A” located five meters below the surface of the water?
2. What is the dependent variable? What is the dependent variable dependent upon?
3. What is the independent variable and why?
4. Using the graph on the next page, construct a line graph that includes BOTH plants on the same graph. Remember to label both axes including units, give your graph an appropriate title and a legend. AFTER completing the graph, answer question #6.
5. What conclusions can be determined from the data in graph 1?
6. Could this data set be represented by any other type of graph? If so what kind?

**Title**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ http://www.biologyjunction.com/graphi1.gif**LEGEND****Plant A:** **Plant B:** **PRACTICE 2:** Diabetes is a disease affecting the insulin-producing glands of the pancreas. If there is not enough insulin being produced by these cells, the amount of glucose in the blood will remain high. A blood glucose level above 140 for an extended period of time is not considered normal. This disease, if not brought under control, can lead to severe complications and even death.  Answer the following questions concerning the data below and then graphit.

|  |  |  |
| --- | --- | --- |
| Time After Eating (hours) | Glucose ml / Liter of Blood Person A | Glucose ml / Liter of Blood Person B |
| **0.5** | **170** | **180** |
| **1** | **155** | **195** |
| **1.5** | **140** | **230** |
| **2** | **135** | **245** |
| **2.5** | **140** | **235** |
| **3** | **135** | **225** |
| **4** | **130** | **200** |

1. What is the dependent variable and why?
2. What is the independent variable and why?
3. On the next page, plot the data to make a LINE graph using two different colours. Give your graph a title, label the axis with units, include a legend.
4. Which, if any, of the above individuals (A or B) has diabetes?
5. What data do you have to support your hypothesis?
6. If the time period were extended to 6 hours, what would the expected blood glucose level for Person B?

**Title**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ http://www.biologyjunction.com/graphi1.gif**LEGEND****Person A:** **Person B:****Patient B:** 1. What conclusions can be determined from the data in graph 2?

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