## Unit 1 - Doing Science - Exercise 1 Graphing Practice

For each data set below, determine the mathematical expression or equation. To do this, first graph the data. Assume the 1st column in each set of values to be the independent variable and the 2nd column the dependent variable. Using the slope and y-intercept of the straight-line graph, write an appropriate equation for the relationship between the variables. Be sure to include units!

|  | a Set 1 |  | Data Set 2 |
| :---: | :---: | :---: | :---: |
| mass <br> (kg) | velocity (m/s) | drop height (cm) | bounce height (cm) |
| 1.0 | 22.4 | 10 | 2 |
| 2.0 | 19.6 | 20 | 7 |
| 3.0 | 16.5 | 30 | 14 |
| 4.0 | 13.3 | 40 | 21 |
| 5.0 | 10.4 | 50 | 27 |
| 6.0 | 7.7 | 60 | 32 |
| 7.0 | 4.6 | 70 | 39 |
| 8.0 | 1.1 | 80 | 45 |
| Sketch of graph: |  | Sketch of graph: |  |
| Equation: |  | Equation: |  |


| Write a complete sentence explaining the <br> relationship between the variables. | Write a complete sentence explaining the <br> relationship between the variables. |
| :--- | :--- |

