# UNIT I Worksheet 1    Practice    Name_____ #:____
# GRAPHING PRACTICE     Period_____ Date_____

For each data set below, determine the mathematical expression.  To do this, first graph the original data.  Assume the _1st column_ in each set of values to be the **independent** variable and the _2nd column_ the **dependent** variable. Then taking clues from the shape of the first graph, modify the data so that the modified data will plot as a straight line. The _3rd column_ is used if you need to modify the data, **record the new column name and data** in it. Using the slope and y-intercept from the linear fit, write an appropriate mathematical expression for the relationship between the variables. _**Be sure to include units!**_

**Data set 1**

| Temp (C°) | Vol (ml) | |
|---|---|---|
| 0 | 10 | |
| 1 | 18 | |
| 2 | 42 | |
| 3 | 82 | |
| 4 | 138 | |
| 5 | 210 | |
| 6 | 298 | |
| 7 | 402 | |
| 8 | 522 | |

Mathematical expression #1

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**Data set 2**

| Shopping (items) | Cash ($) | |
|---|---|---|
| 0.2 | 40 | |
| 1 | 8 | |
| 2 | 4 | |
| 2.8 | 3 | |
| 6 | 1 | |
| 10 | 0.8 | |
| 16 | 0.5 | |
| 20 | 0.4 | |

Mathematical expression #2

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**Data set 3**

| S (hrs) | G (pts) | |
|---|---|---|
| 2 | 14.6 | |
| 4 | 18 | |
| 6 | 22 | |
| 8 | 24 | |
| 10 | 26 | |
| 12 | 28.6 | |
| 14 | 30.4 | |
| 16 | 34 | |

Mathematical expression #3

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**Data set 4**

| Y (m) | t (s) | |
|---|---|---|
| 0 | 0 | |
| 0.2 | 5 | |
| 1.1 | 10 | |
| 2.3 | 15 | |
| 4.3 | 20 | |
| 7 | 25 | |
| 9.6 | 30 | |
| 14 | 35 | |
| 18 | 40 | |

Mathematical expression #4

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