## 12-I Graphing Linear Equations Worksheet

 Make a table and a graph for each equation.1) | $y=3 x-4$ |  |
| :---: | :---: |
| $\mathbf{x}$ | $\mathbf{y}$ |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |
2) | $\frac{1}{2} x$ |  |
| :---: | :---: |
| $\mathbf{x}$ | $\mathbf{y}$ |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |


5) $y=1 / 4 x-1$

| $y=1 / 4 x-1$ |  |
| :---: | :---: |
| $\mathbf{x}$ | $\mathbf{y}$ |
| -8 |  |
| -4 |  |
| 0 |  |
| 4 |  |
| 8 |  |


3) $y=x+1$

| $\mathbf{x}$ | $\mathbf{y}$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |


6) $y=-5$

| $\mathbf{x}=-5$ | $\mathbf{y}$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |



Name $\qquad$
The equation $\mathbf{d} \mathbf{= 0 . 2 s}$ represents the approximate distance " $d$ " in miles of a thunderstorm where " $s$ " seconds pass between a flash of lightning and the sound of thunder. About how far is the thunderstorm from each student listed in the table? Graph the relationship between the time between lightning and thunder and the distance of the storm from the student.

| Student | Time Between <br> Flash and <br> Thunder (s) | Distance (d) |
| :---: | :---: | :---: |
| Sandy | 5 |  |
| Diego | 9 |  |
| Ted | 4 |  |
| Cecilia | 11 |  |
| Melissa | 8 |  |



A charter bus service charges $\$ 125$ plus $\$ 8.50$ for each passenger "p," represented by the equation $\mathbf{C = 8 . 5 p + 1 2 5}$. What is the charge for the following numbers of passengers in the table? Graph the equation.

| Number of <br> Passengers (p) | Charge (C) |
| :---: | :---: |
| 50 |  |
| 100 |  |
| 150 |  |
| 200 |  |
| 250 |  |



Answer the following question in a well-written paragraph. You can use tables and/or graphs to help explain.
How would you prove that the graph of $\mathbf{y}=\mathbf{2 x} \mathbf{- 1}$ is a straight line?

