*Experiment 1*

# The Wave

Name _____

Partner _____

## *Collect the Data*

Draw a diagram of the experiment, indicating variables.

Describe the procedure for the experiment.

The independent variable, $x$, is _____ Units _____

The dependent variable, $y$, is _____ Units _____

*Data Collection*

| Independent | Dependent |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |

*Points to Be Graphed*

| $x$ | $y$ |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |

# The Wave

Name _____

## *Find the Equation*

After plotting your data on graph paper, draw a straight line through two of your points. Choose the line that best fits your data. Circle the points on your graph and copy their coordinates below.

Your points: (____, _____) and (____, _____)

Use these points to find the equation of your line. Show your work.

Find the slope of the line.

Find the $y$-intercept of the line.

Write the equation of the line.

$y =$ _____ $x +$ _____ $\qquad$ $y =$ _____ $x +$ _____

*rational form* $\qquad$ *decimal form*

Rewrite the decimal form of the equation, using the names of the variables instead of $x$ and $y$.

_____ = _____ _____ + _____