Name

## Graphing Proportions

Date

1. Write four different ratios that are equivalent to $1 / 2$ and write their decimal forms. 1/2, $\qquad$ , $\qquad$ __-
2. Using numerators as a values for $X$ and denominators as values for $Y$, set up a scatter plot on the graphing calculator. Sketch the graph on the grid below.
3. Make a prediction about the graph of all ratios that are equivalent to $1 / 2$ and explain your thinking.
4. What is the slope of the line that contains these equivalent ratios?
5. How does the slope of the line compare to the decimal for each ratio?

6. Now write any five equivalent ratios of your own and their decimal forms. What do you predict the graph of these points will look like? Why do you think this?
7. Use the numerators and denominators again as $X$ and $Y$ values, and set up a scatter plot on the graphing calculator to show the ordered pairs.
8. Make a prediction about the graph of all ratios that are equivalent to your ratios and explain your thinking.
9. What is the slope of the line that contains these equivalent ratios?
10. How does the slope of the line compare to the decimal for each ratio?
11. Why do you think equivalent ratios create linear relations?

