Slope of non-vertical lines 12.12.16

## Welcome

Opening exercises.
Go over opening exercises and then have them try pair 1 and pair 2.
Look at creating the ratios of the slope.
Rise over run. It is always how far you go up first over how far you move left or right.
Go over pair one and pair 2, 3, and 4.

Positive slope is left to right incline
Negative slope is left to right decline.

Draw a line through the origin. With a slope that is not one. Pick a point on that line. Show vertical distance on the $y$ axis and the horizontal distance on the $x$ axis. Show it as a ratio.

Do this twice with different slopes one of 3 and one of a fraction. Then do a couple negative slopes and show that it is going down.

Do this when it is not on the origin as well.

Try exercises 1-6.

Remember lesson 11 about Pauline who mows the lawn 35 square foot lawn in 2.5 minutes.

| t (time in minutes) | Linear Equation: $y=\frac{35}{2.5} t$ | y (area in square feet) |
| :--- | :--- | :--- |
| 0 | $\mathrm{y}=35 / 2.5(0)$ | 0 |
| 1 | $\mathrm{y}=35 / 2.5(1)$ | 14 |
| 2 | $\mathrm{y}=35 / 2.5(2)$ | 28 |
| 3 | $\mathrm{y}=35 / 2.5(3)$ | 42 |
| 4 | $\mathrm{y}=35 / 2.5(4)$ | 56 |

Plot these points and ask them to find the slope. See if they can find the connection between the rate and the slope.

Homework: Lesson $15 \bmod 4$ problem set \#1-7

