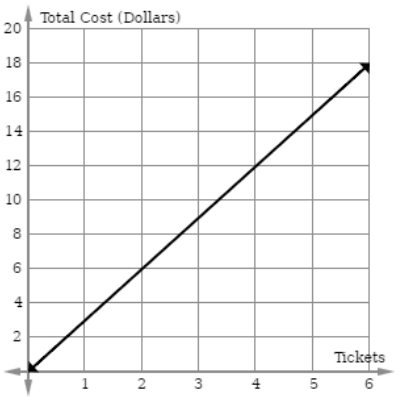
Algebra Readiness SBAC Practice 4 Name _____ Date _____ Period ___

Part A: Graph & Compare Proportional Relationships [8.EE.5]

1. Hellen buys bus tickets each month. Use the graph to answer the question.



Select the statement that is true.

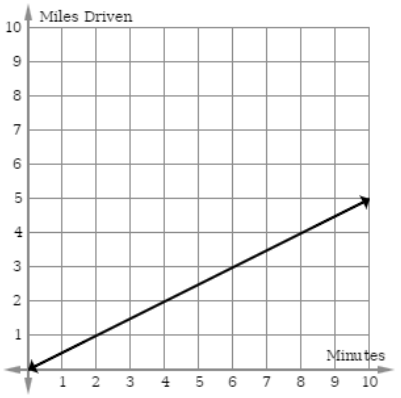
A) Hellen spent 6 dollars to buy 18 tickets.

B) Hellen spent 12 dollars to buy 12 tickets.

C) Hellen spent 6 dollars to buy 2 tickets.

D) Hellen spent 20 dollars to buy 6 tickets.

2. Christopher is driving to work. The graph shows a proportional relationship between time passed and miles driven.



Select the statement that identifies the slope correctly and interprets the slope in the context of the situation.

A) The slope of the line is 2; every minute, Christopher drives 2 miles.

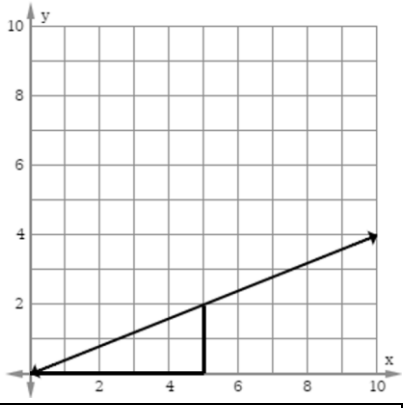
B) The slope of the line is 2; every 2 minutes, Christopher drives 1 mile.

C) The slope of the line is $\frac{1}{2}$; every minute, Christopher drives $\frac{1}{2}$ mile.

D) The slope of the line is $\frac{1}{2}$; every $\frac{1}{2}$ minute, Christopher drives 1 mile.

Part B: Similar Triangles & Slope [8.EE.6]

3. The proportional relationship shown below has slope $\frac{2}{5}$ and passes through (0, 0).



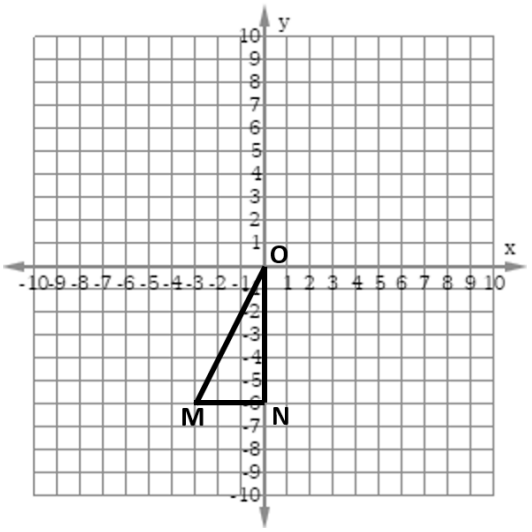
Starting at the origin, move 10 units to the right and then up until you get to the line.

What do you notice about the two triangles formed? What do you wonder?

Notice	Wonder

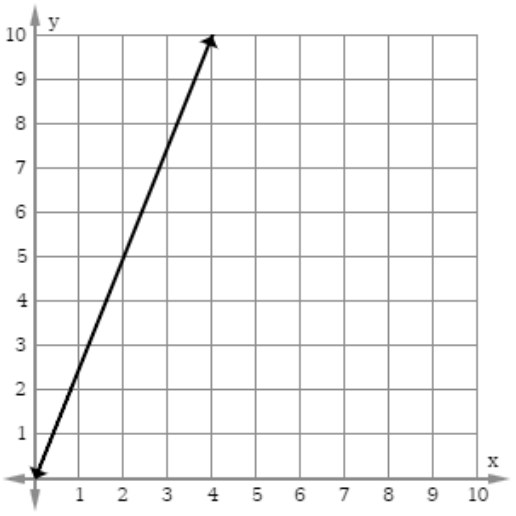
4. Triangle MNO has vertices M(-3, -6), N(0, -6), O(0, 0).

Consider the line MO. Suppose point P is on line MO with coordinates (4, *y*). **Find** the value of *y*. **Justify** your reasoning.



Part C: Constructing Linear Models [8.F.4]

5. **Find** the equation of the line in the form $y = mx + b$ where *m* is the slope. **Justify** your reasoning.



6. **Find** the equation of the line in the form $y = mx + b$ where *m* is the slope. **Justify** your reasoning.