ANALYZE PROPORTIONAL RELATIONSHIPS

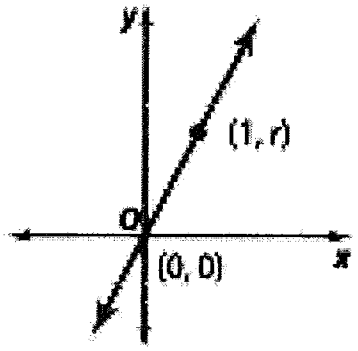
When two quantities are proportional you can:

-use the graph to find the constant of proportionality (k)

-analyze points on the graph

The graph of every proportional relationship pass though the point _____.

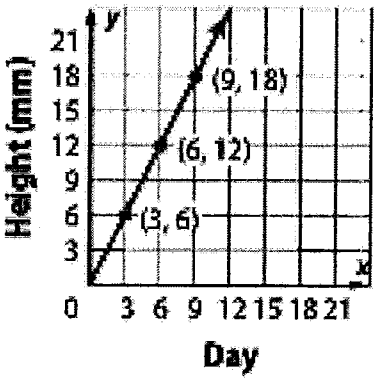
The constant of proportionality (or the unit rate) can be found at the point _____, where _____.



EXAMPLE (#2 in book)

2. Keith plants a seed. Every three days after the seed sprouts he measures the height of the plant. The graph shows his results.

a. Find and interpret the constant of proportionality.



b. Explain what the points (0,0), (1,2), and (6,12) represent.

NAME _____ DATE 10/24/17 PERIOD 3rd

All

Lesson 6 Homework Practice

Graphing Proportional Relationships

Determine whether each relationship is proportional by graphing on a coordinate plane. Explain your reasoning.

1.

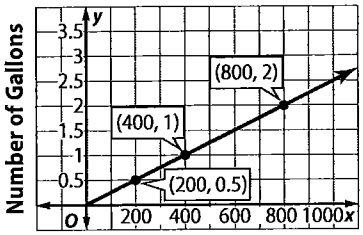
Number of Sandwiches	1	5	10	15	20
Cost ($)	3	13.75	25	33.75	40

2.

Time (hr)	0	1	2	3	5
Number of Gallons	0	600	1200	1800	2400

Find and interpret the constant of proportionality.

3. The number of gallons of paint required is proportional for the number of square feet of surface to be painted. The graph shows the relationship (square feet, number of gallons).



4. The formula for the area A of a rectangle with a length of 5 inches is $A = 5w$, where w is the width in inches. Make a table showing the area of the rectangles with a 5-inch length and a width of 2, 4, 6, and 8 inches. Then graph the ordered pairs. Determine whether the area of all rectangles with a length of 5 inches is proportional to the width in inches. Explain your reasoning.