Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_ Date: \_\_\_\_\_\_

**4.3A Graphing Proportional Relationships\_Classwork**

*Objective: Graph proportional relationships, interpret the unit rate as the slope. Compare two different proportional relationships represented in different ways. (CCSS: 8.EE.5)*

*HW: 4.3A worksheet*

**LESSON LAUNCH**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Make a table
2. Draw the graph of the proportional relationship between the two quantities

(Do not forget to label the x- & y-axis or use equal intervals)1. Describe how the unit rate is represented on the graph (**interpret the slope**)

On Taco Tuesday, 4 tacos cost $6.00.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| x | 0 | 1 | 2 | 3 | 4 | 5 |
| y |   |   |   |   |  6.00 |   |

Interpret the slope:  |  |

Two quantities (x and y) are in a proportional relationship when it can be represented by the equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This means the graph must pass through the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (so it contains the point ( , )

There will be a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rate of change, which is also called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EXAMPLE 1:** Tell whether x and y are in a proportional relationship. Explain your reasoning. If so, write an equation that represents the relationship.

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | 2. | 3. | 4. |

 |

|  |  |
| --- | --- |
| **EXAMPLE 2:** The amount *p* (in dollars) that you earn by working *h* hours is represented by the equation Graph the equation and interpret the slope.Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Interpret the slope:  | TA: C:\replacearts\Blue Record and Practice Journal\Blue Chapter 4 RPJ\Arts\PNGs\mscc8_rpj_0403_06.png |

|  |
| --- |
| **EXAMPLE 3:** The cost *c* (in dollars) to rent a bicycle is proportional to the number *h* of hours that you rent the bicycle. It costs $20 to rent the bicycle for 4 hours.1. Write an equation that represents the situation. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Interpret the slope. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How much does it cost to rent the bicycle for 6 hours?
 |

**PRACTICE PROBLEMS**

|  |  |
| --- | --- |
| 1. Gabriel earns $5.50 per hour working for his uncle. Fill in the table, make a graph and describe how the unit rate is represented on the graph. Include the x- & y-axis labels.

   INTERPRETATION OF SLOPE (Describe how the unit rate is represented on the graph): |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. The dry cleaners charges $13.00 to clean and press two jackets.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| x | 0 | 1 | 2 | 3 | 4 | 5 |
| y |   |   | $13  |   |   |   |

Interpret the slope:  | 1. Five Gala apples cost $2.00.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| x | 0 | 1 | 2 | 3 | 4 | 5 |
| y |   |   |   |   |   |  2.00 |

Interpret the slope:  |