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**

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| 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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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| **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. | |

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| **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 |

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| **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**

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| 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): |  |

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| 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: |