**Study Guide Unit 1: Ratios and Proportional Relationships**

**Vocabulary to know:**

1. Unit rate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Proportion: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Equivalent ratios: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Coordinate Plane: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Origin: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Constant of proportionality: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Proportional relationships: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Non-proportional relationships: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Ratio: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Standard: 7.RP.2A**

**Determine whether the table and graph below are proportional.**

1. Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Hours | 1 | 2 | 3 | 4 |
| Pay |  12 |  24 | 36 |  48 |

1. Graph



**Standard: 7.RP.2B**

**Determine the constant of proportionality.**

|  |  |
| --- | --- |
| Hours(h) | Miles(m) |
| 2 | 140 |
| 4 | 280 |
| 6 | 420 |

|  |  |
| --- | --- |
| Tickets(t) | Cost(c) |
| 5 | 60 |
| 10 | 120 |
| 15 | 180 |

2.

1.

3.

**Standard: 7.RP.2C**

**Write an equation to represent each situation below.**

1. ****
2. An elm tree grows 8 inches each year.

****

 **Standard: 7.RP.2D**

1. What does the ordered pair, (200, 1400) mean on the graph to the right?



1. Identify the unit rate and describe what it means.
2. What does the ordered pair, (500, 3500) means on the graph to the right?