Unit 7: Ratios and Proportions Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Pre-Algebra: Practice Test Hour:\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **7.1: I can calculate the unit rate.** | | |
| 1. | 2. | |
| 3. | 4. | |
| **7.1: I can simplify complex fractions.** | | |
| **5.** | | **6.** |
| **7.** | | **8.** |
|  | Score:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_% | |

|  |  |
| --- | --- |
| **7.2 I can find equivalent rates by conversion.** | |
| 1. | |
| 2. | |
| 3. | |
| 4. | |
|  | Score:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_% |

|  |  |
| --- | --- |
| **7.3 I can state whether the ratios for a proportion.** | |
| 1. | **2.** |
| 3. | **4.** |
| **7.3 I can solve proportions using cross products.** | |
| 5. | 6. |
| 7. | 8. |
|  | Score:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_% |

|  |  |
| --- | --- |
| **7.4 I can use a table to find the constant of proportionality.** | |
| 1. Each pound of green beans costs:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Pounds of Beans (x) | 3 | 5 | 7 | 9 | 11 | | Cost (y) | $0.99 | $1.65 | $2.31 | $2.97 | $3.63 |   Equation: | |
| 2. Each unicorn costs:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Unicorns (x) | 2 | 4 | 6 | 8 | 10 | | Cost (y) | $450 | $900 | $1,350 | $1,800 | $2,250 |   Equation: | |
| 3. Each candle costs:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Candles (x) | 1 | 4 | 8 | 12 | 16 | | Cost (y) | $2 | $8 | $16 | $24 | $32 |   Equation: | |
| 4. For every M&M in the bag, there are\_\_\_\_\_\_\_ green M&Ms:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | # of Green M&Ms (x) | 12 | 18 | 24 | 30 | 36 | | Total # of M&Ms (y) | 48 | 72 | 96 | 120 | 144 |   Equation: | |
| **7.4 I can use a table to determine if a relationship varies directly.** | |
| State whether the table represents a proportional relationship. | |
| 5.   |  |  | | --- | --- | |  |  | | 0 | 0 | | 1 | 3 | | 2 | 6 | | 3 | 9 | | 4 | 12 | | |  |  | | --- | --- | |  |  | | 0 | 0 | | 4 | 400 | | 20 | 1,600 | | 40 | 12,000 | | 80 | 32,000 |   6. |
|  | Score:\_\_\_\_\_\_\_\_\_\_\_\_\_\_% |

|  |  |
| --- | --- |
| **7.5 I can find the constant of proportionality and use it to write an equation.** | |
| 1. | 2. |
| 3. | 4. |
| **7.5 I can tell whether x and y are related directly.** | |
| 5. | 6. |
| 7. | 8. |
|  | Score:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_% |

|  |
| --- |
| **7.6 I can graph solutions to direct variation equations. Write the equation for each line.** |
| 1. http://www.algebra-class.com/images/blank-graph.gif  |  |  | | --- | --- | |  |  | | **0** |  | | **1** |  | | **2** |  | | **3** |  | | **4** |  | |
| 1. http://www.algebra-class.com/images/blank-graph.gif  |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |
| 1. http://www.algebra-class.com/images/blank-graph.gif  |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |

Score:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_%

|  |  |
| --- | --- |
| **7.7 I can write and solve a proportion and use direct variation to represent real-life problems.** | |
| 1. 8 rolls of paper towel cost $14.08. How many rolls can you buy for $21.12 | |
| Proportion: | Answer: |
| Constant of Proportionality (k): | Direct Variation Equation: |
| 2. Joseph drives 125 miles in 25 hours. At the same rate, how far will he be able to drive in 6 hours? | |
| Proportion: | Answer: |
| Constant of Proportionality (k): | Direct Variation Equation: |
| 3. One hundred people attend a school fundraiser. The school earns $2500 from ticket sales. How much money will be raised from ticket sales if 500 people attend next year? | |
| Proportion: | Answer: |
| Constant of Proportionality (k): | Direct Variation Equation: |
| 4. If recycling 2006 pounds of paper saves 17 trees, how many trees are saved when 5000 pounds of paper are recycled? | |
| Proportion: | Answer: |
| Constant of Proportionality (k): | Direct Variation Equation: |
|  | Score:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_% |