**Unit 2: Ratios and Proportional Reasoning** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 **Study Guide**

1. Write an equivalent ratio to 2:3. \_\_\_\_\_\_\_\_\_\_\_\_\_
2. The ratio of boys to girls in a class is 3:4. If there are 42 students in the class, how many are boys? \_\_\_\_\_\_
3. Write the rate as a unit rate: $48 for 4 tickets. \_\_\_\_\_\_\_
4. Joe drove 215 miles in 3 hours. Moe drove 240 miles in 4 hours. Who drove at the fastest rate of speed? \_\_\_\_\_\_\_ How fast was each person driving? Joe\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Moe \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Replace the *x, y,* and *z* in the tables of equivalent ratios with the correct number. Do not simplify the answers.**

1. The prices of 4 different bottles of shampoo are given in the table. Which bottle size is the best value? \_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Size | Price |
| 24 ounces | $4.50 |
| 15 ounces | $2.30 |
| 8 ounces | $1.60 |
| 4 ounces | $0.95 |

1. Determine the missing value. $\frac{16}{20}= \frac{x}{180}$
2. The table below shows the number of each item sold at the concession stand. What might the ratio 3:2 represent?

|  |  |
| --- | --- |
| Item | Quantity Sold |
| Popcorn | 20 |
| Nachos | 15 |
| Hot Dog | 25 |
| Candy Bar | 30 |

1. Using the same table above, what is the ratio of hot dogs to popcorn? \_\_\_\_\_\_\_\_\_
2. What is the ratio of Nachos to all food items? \_\_\_\_\_\_\_\_\_\_

Use the double number line below to answer questions 15-18.

1.  How long will it take to read 27 pages? \_\_\_\_\_\_\_\_\_
2. How many pages can be read in 15 minutes? \_\_\_\_\_\_\_\_\_
3. How long will it take to read 90 pages? \_\_\_\_\_\_\_\_\_
4. How many pages can be read in 2 hours? \_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Number of Books | Cost |
| 3 | $24 |
| 5 | $40 |
| 12 | $96 |
| 20 | *n* |

1. The table below shows the cost for varying number of books. If the relationship stays the same, determine the value of *n*. \_\_\_\_\_\_\_\_
2. The graph below compares cups to pints. Which of the following ordered pairs would also satisfy this relationship?



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A. | (4, 2) | B. | (2, 4) | C. | (2, 0) | D. | (1, 2) |

1. Thirteen is 25% of what number? \_\_\_\_\_\_\_\_\_\_\_\_\_
2. Find 15% of 32. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. If in a class of 40 students, 45% are in Band, how many students are in Band? \_\_\_\_\_\_\_\_
4. Ann deposits 20% of her earning each week into her savings account. If she deposited $17 this week, how much did she earn? \_\_\_\_\_\_\_\_\_\_
5. If 1 inch is approximately 2.54 centimeters, about how many centimeters are equal in length to 1 foot? \_\_\_\_\_\_\_