

Math 6 – Unit 2: Rates, Ratios & Proportional Reasoning Review

Knowledge and Understanding

1. What is a ratio? A comparison of 2 numbers.
2. What is a rate? A ratio that compares 2 quantities measured in different units
3. What is a unit rate? A comparison of 2 measurements of one (one) in which one term has a value of one
4. What is a percent? number out 100

Proficiency of Skills

5. Fill in the ratio tables

9	18	27	36	45
12	24	36	48	60
6. 80 is 25% of what number? 320

$$\frac{P}{W} = \frac{25}{100} \Rightarrow \frac{80}{W} = \frac{25}{100} \Rightarrow W = \frac{80 \times 100}{25} = 320$$
7. Find 30% of 70. 21

$$\frac{P}{W} = \frac{30}{100} \Rightarrow \frac{P}{70} = \frac{30}{100} \Rightarrow P = \frac{70 \times 30}{100} = 21$$
8. Find the value of x. 18

$$\frac{3 \times 12}{25} = \frac{x}{30} \Rightarrow 3 \times 12 \times 30 = 25x \Rightarrow 1080 = 25x \Rightarrow x = \frac{1080}{25} = 43.2$$
9. Write the ratio as a unit rate: \$27 for 9 tickets. \$3 per ticket

$$\frac{27}{9} = 3$$

Application

10. Jaden drove 260 miles in 4 hours. Jada drove 210 miles in 3 hours. Who drove at the fastest rate of speed? How do you know?
 a. Who drove the fastest? JADA
 b. How do you know? Because I found unit rates and compared them. Jada went more miles in the same time.

11. A circus elephant is going to stand on a ball. Lulu the Elephant weighs 2 Tons. If the ball can hold up to 3,000 pounds, will Lulu make it? Explain your answer.
1 Ton = 2000 lbs, Lulu = 4000 lbs. she is heavier than 3000 lbs. **NO**
12. The table below shows the number of each item sold at the concession stand. What might the ratio 3:4 represent?

Item	Quantity Sold
Popcorn	20
Nachos	15
Hot Dog	28
Candy Bar	30

NACHOS: 15 = 3/4
POPCORN: 20 = 4

11. The ratio of boys to girls in a class is 4:8. If there are 24 students in the class, how many are boys?
8 BOYS

12. In a class of 40 students, 30% DID return their permission slips for the school field trip. How many students did NOT return their permission slips?
28 STUDENTS DID NOT TURN IN FORM

13. The table below shows the cost for varying number of books. If the rate stays the same, determine the value of n.

Number of Books	Cost
6	\$24
10	\$40
12	\$48
20	N

N = \$80