

6.RP.3 — Ratios & Rates in the Real World

Word Problems • Grade 6 • CCSS 6.RP.3

Name: _____

Date: _____

Read each problem carefully, then use ratio and rate reasoning to find the answer.

1. A car travels 180 miles in 3 hours at a constant speed. How many miles does the car travel per hour?

2. A grocery store sells 5 apples for \$2.50. At this rate, how much would 12 apples cost?

3. A recipe calls for 3 cups of flour for every 2 cups of sugar. If a baker uses 9 cups of flour, how many cups of sugar are needed?

4. A runner completes 4 laps in 10 minutes. At this rate, how many laps will the runner complete in 25 minutes?

5. A map has a scale of 1 inch = 50 miles. Two cities are 7 inches apart on the map. What is the actual distance between the two cities?

6. A store is offering a 25% discount on a jacket that originally costs \$80. How much money will a customer save?

7. There are 120 students in 6th grade. If 45% of them participate in after-school clubs, how many students participate in after-school clubs?

8. A faucet leaks at a rate of 3 gallons every 4 hours. How many gallons will leak in 24 hours?

9. A factory produces 560 toy cars in 8 hours. How many toy cars does it produce per hour?

10. A swimming pool is being filled at a rate of 150 gallons per hour. How many gallons will be in the pool after 6 hours?

11. At a fruit stand, oranges are sold at a ratio of 3 oranges for \$1.50. Complete the equivalent ratio table: if you buy 6, 9, and 12 oranges, how much does each cost? What is the unit price per orange?

12. A cyclist rides 48 miles in 4 hours. At this same unit rate, how long will it take the cyclist to ride 72 miles?

13. A student answered 35 out of 40 questions correctly on a test. What percent of the questions did the student answer correctly?

14. A bag of dog food weighs 15 pounds. How many ounces does the bag weigh? (1 pound = 16 ounces)

15. A tank holds 6 liters of water. There are 1,000 milliliters in 1 liter. How many milliliters of water does the tank hold?

16. A school bought 8 boxes of markers. Each box contains 24 markers. The school paid a total of \$48. What is the cost per marker?

17. A car uses 2 gallons of gas to travel 56 miles. How many miles per gallon does the car get, and how far can it travel on 7 gallons?

18. A class has 18 girls and 12 boys. Write the ratio of girls to boys in simplest form.
19. A store marks up the price of a shirt from \$15 to \$24. What is the percent increase in price?
20. It takes 5 workers 6 days to complete a project. If the same total amount of work is shared equally among 10 workers working at the same rate, how many days will it take them to finish?
21. A recipe that serves 4 people uses 2 pounds of pasta. How many pounds of pasta are needed to serve 14 people?
22. A store sells trail mix for \$3.60 per pound. How much would 2.5 pounds of trail mix cost?

Answer Key

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| 1. 60 miles per hour | 9. 70 toy cars per hour | 17. 28 miles per gallon; 196 miles on 7 gallons |
| 2. \$6.00 | 10. 900 gallons | 18. 3:2 |
| 3. 6 cups of sugar | 11. \$0.50 per orange | 19. 60% |
| 4. 10 laps | 12. 6 hours | 20. 3 days |
| 5. 350 miles | 13. 87.5% | 21. 7 pounds of pasta |
| 6. \$20.00 | 14. 240 ounces | 22. \$9.00 |
| 7. 54 students | 15. 6,000 milliliters | |
| 8. 18 gallons | 16. \$0.25 per marker | |