

Simplifying Ratios and Rates

Simplify all answers.

Find the following ratios.

1. 4 to 12

2. 8 to 10

3. 40 to 24

4. 15 to 3

5. 6 in. to 9in.

6. 3 lb. to 8 oz.

7. 3 gal. to 3 qt.

8. 1 hr.15 min. to 25 min.

What is the ratio of:

9. A dime to a dollar?

10. 4 cents to 2 nickels?

11. 6 dollars to 3 dimes

12. 1 dozen cakes to 8 cakes

13. $1\frac{1}{2}$ dozen doughnuts to 4 doughnuts

Express each of the following rates in simplest form.

14. 5 oranges for 48 cents

15. \$7 for 3 shirts

16. 850 miles in 17 hours

17. 91 miles on 7 gallons

18. 2,400 gal. in 30 min.

19. 325 miles in 5 hrs.

20. There are 16 men and 24 women in a mathematics class. What is the ratio of:

a. girls to boys?

b. boys to girls?

c. girls to entire class?

21. The pitch of a roof is the ratio of the rise to the span. What is the pitch of a roof with a rise of 6 feet and a span of 18 feet?

22. The lift-drag ratio is the ratio of the lift of an airplane to its drag. Find the lift-drag ratio if the lift is 1,980 lb. and the drag is 165 lb.