

1. Ratio of girls to boys is 3:8. If there are 48 boys, how many girls are there?

2. Ratio of teachers to students is 2:15. If there are 18 teachers, how many students are there?

3. Ratio of sweaters to vests is 6:5. If there are 30 vests, how many sweaters are there?

4. Ratio of dolls to barbies is 9:4. If there are 36 dolls, how many barbies are there?

5. Ratio of correct answers to incorrect answers is 11:4. If there are 28 incorrect answers, how many correct answers are there?

6. Ratio of trucks to cars is 5:12. If there are 50 trucks, how many cars are there?

7. The ratio of crackers to pretzels is 9:12. If there are 15 crackers, then how many pretzels are there?

8. The ratio of pots to pans is 20:32. If there are 48 pans, how many pots are there?

9. The ratio of red marbles to black marbles is 18:4. If there are 6 black marbles, how many red marbles are there?

10. The ratio of pairs of sneakers to pairs of sandals is 27:21. If there are 49 pairs of sandals, how many pairs of sneakers are there?

11. The ratio of jeans to shorts is 16:12. If there are 32 jeans, how many shorts are there?

12. The ratio pencils to pens are 35:15. If there are 21 pencils, how many pens are there?

13. When playing basketball, Jeremy always makes 2 out of every 5 shots. If Jeremy takes 25 shots, how many times will he make the basket?

14. Jesse's phone rang 3 times in 10 minutes. How many times do you estimate the phone will ring in 40 minutes?

15. Stuart visited 40 people in 4 hours. How long will it take Stuart to visit 120 people?

16. Bethany typed 35 words in 2 minutes. If Beth were to type for 10 minutes at the same speed, how many words would she type?

17. On a typical day, Susan noticed that 4 out of every 9 birds were robins. If Susan saw 63 birds, how many of them were robins?

18. Barb wants to get 8 out of every 10 questions right on her test. If there are 35 questions on the test, how many will Barb want to get right.
19. Connor watched 4 movies in 6 hours. How long would it take Connor to watch 10 movies?
20. A company has 3 cars for every 9 trucks it owns. If the company owns 31 cars, how many trucks do the company own?
21. Rusty walked 5 miles in 65 minutes. How long did it take him to walk 2 mile?
22. Solomon goes jogging 4 out of every 6 days. How many times will Solomon jog in 3 weeks?

Key

1. Ratio of girls to boys is 3:8. If there are 48 boys, how many girls are there?

$$\frac{\text{girls}}{\text{boys}} = \frac{3 \times 6}{8 \times 6} = \frac{18 \text{ girls}}{48 \text{ boys}}$$

18 girls

2. Ratio of teachers to students is 2:15. If there are 18 teachers, how many students are there?

$$\frac{\text{teachers}}{\text{students}} = \frac{2 \times 9}{15 \times 9} = \frac{18 \text{ teachers}}{135 \text{ students}}$$

135 students

3. Ratio of sweaters to vests is 6:5. If there are 30 vests, how many sweaters are there?

$$\frac{\text{sweaters}}{\text{vests}} = \frac{6 \times 6}{5 \times 6} = \frac{36 \text{ sweaters}}{30 \text{ vests}}$$

36 sweaters

4. Ratio of dolls to barbies is 9:4. If there are 36 dolls, how many barbies are there?

$$\frac{\text{dolls}}{\text{barbies}} = \frac{9 \times 4}{4 \times 4} = \frac{36 \text{ dolls}}{16 \text{ barbies}}$$

16 barbies

5. Ratio of correct answers to incorrect answers is 11:4. If there are 28 incorrect answers, how many correct answers are there?

$$\frac{\text{correct}}{\text{incorrect}} = \frac{11 \times 7}{4 \times 7} = \frac{77 \text{ correct}}{28 \text{ incorrect}}$$

77 correct

6. Ratio of trucks to cars is 5:12. If there are 50 trucks, how many cars are there?

$$\frac{\text{trucks}}{\text{cars}} = \frac{5 \times 10}{12 \times 10} = \frac{50 \text{ trucks}}{120 \text{ cars}}$$

120 cars

7. The ratio of crackers to pretzels is 9:12. If there are 15 crackers, then how many pretzels are there?

$$\frac{\text{crackers}}{\text{pretzels}} \quad \frac{9}{12} = \frac{15 \text{ crackers}}{20 \text{ pretzels}} \quad 20 \text{ pretzels}$$

$$\frac{9}{12} = \frac{3 \times 5 = 15}{4 \times 5 = 20}$$

8. The ratio of pots to pans is 20:32. If there are 48 pans, how many pots are there?

$$\frac{\text{pots}}{\text{pans}} \quad \frac{20}{32} = \frac{30 \text{ pots}}{48 \text{ pans}} \quad 30 \text{ pots}$$

$$\frac{20}{32} = \frac{5 \times 6 = 30}{8 \times 6 = 48}$$

9. The ratio of red marbles to black marbles is 18:4. If there are 6 black marbles, how many red marbles are there?

$$\frac{\text{red}}{\text{black}} \quad \frac{18}{4} = \frac{27 \text{ red}}{6 \text{ black}} \quad 27 \text{ red marbles}$$

$$\frac{18}{4} = \frac{9 \times 3}{2 \times 3} = \frac{27}{6}$$

10. The ratio of pairs of sneakers to pairs of sandals is 27:21. If there are 49 pairs of sandals, how many pairs of sneakers are there?

$$\frac{\text{sneakers}}{\text{sandals}} \quad \frac{27}{21} = \frac{63 \text{ sneakers}}{49 \text{ sandals}} \quad 63 \text{ sneakers}$$

$$\frac{27}{21} = \frac{9 \times 7 = 63}{7 \times 7 = 49}$$

11. The ratio of jeans to shorts is 16:12. If there are 32 jeans, how many shorts are there?

$$\frac{\text{jeans}}{\text{shorts}} \quad \frac{16 \times 2}{12 \times 2} = \frac{32 \text{ jeans}}{24 \text{ shorts}} \quad 24 \text{ shorts}$$

12. The ratio pencils to pens are 35:15. If there are 21 pencils, how many pens are there?

$$\frac{\text{pencils}}{\text{pens}} \quad \frac{35}{15} = \frac{21 \text{ pencils}}{9 \text{ pens}} \quad 9 \text{ pens}$$

$$\frac{35}{15} = \frac{7 \times 5 = 35}{3 \times 5 = 15}$$

13. When playing basketball, Jeremy always makes 2 out of every 5 shots. If Jeremy takes 25 shots, how many times will he make the basket?

$$\frac{\text{Baskets}}{\text{Shots}} = \frac{2}{5} \times 5 = \frac{10}{25} \text{ baskets}$$

10 baskets

14. Jesse's phone rang 3 times in 10 minutes. How many times do you estimate the phone will ring in 40 minutes?

$$\frac{\# \text{ of times}}{\# \text{ of minutes}} = \frac{3}{10} \times 4 = \frac{12}{40} \text{ times}$$

12 times

15. Stuart visited 40 people in 4 hours. How long will it take Stuart to visit 120 people?

$$\frac{\text{people}}{\text{hours}} = \frac{40}{4} \times 3 = \frac{120}{12} \text{ people}$$

12 hours

16. Bethany typed 35 words in 2 minutes. If Beth were to type for 10 minutes at the same speed, how many words would she type?

$$\frac{\text{words}}{\text{minutes}} = \frac{35}{2} \times 5 = \frac{175}{10} \text{ words}$$

175 words

17. On a typical day, Susan noticed that 4 out of every 9 birds were robins. If Susan saw 63 birds, how many of them were robins?

$$\frac{\text{Birds}}{\text{Robins}} = \frac{9}{4} \times 7 = \frac{63}{28} \text{ birds}$$

28 Robins

18. Barb wants to get 8 out of every 10 questions right on her test. If there are 35 questions on the test, how many will Barb want to get right.

$$\frac{8 \text{ \# right}}{10 \text{ question}} = \frac{8}{10} = \frac{28 \text{ \# right}}{35 \text{ questions}}$$

28 right

$$\frac{8}{10} = \frac{4 \times 2}{5 \times 2} = \frac{8}{10}$$

19. Connor watched 4 movies in 6 hours. How long would it take Connor to watch 10 movies?

$$\frac{\text{movies}}{\text{hours}} \frac{4}{6} = \frac{10 \text{ movies}}{15 \text{ hours}}$$

15 hours

$$\frac{4}{6} = \frac{2 \times 5}{3 \times 5} = \frac{10}{15}$$

20. A company has 3 cars for every 9 trucks it owns. If the company owns 31 cars, how many trucks do the company own?

$$\frac{\text{cars}}{\text{trucks}} \frac{3}{9} = \frac{31 \text{ cars}}{93 \text{ trucks}}$$

93 trucks

$$\frac{3}{9} = \frac{1 \times 31}{3 \times 31} = \frac{31}{93}$$

21. Rusty walked 5 miles in 65 minutes. How long did it take him to walk 2 mile?

$$\frac{\text{miles}}{\text{minutes}} \frac{5}{65} = \frac{2 \text{ miles}}{26 \text{ minutes}}$$

26 minutes

$$\frac{5}{65} = \frac{1 \times 2}{13 \times 2} = \frac{2}{26}$$

22. Solomon goes jogging 4 out of every 6 days. How many times will Solomon jog in 3 weeks?

$$\frac{\text{days jogging}}{\text{\# of days}} \frac{4}{6} = \frac{14 \text{ \# of days jogging}}{21 \text{ days total}}$$

$$7 \times 3 = 21$$

14 days total jogging

$$\frac{4}{6} = \frac{2 \times 7}{3 \times 7} = \frac{14}{21}$$