



O Level Maths

Topic: Ratios and Proportions

Instructions

Answer all questions. Show working where necessary. Use your knowledge of ratios and proportions to simplify and solve the given problems.

Practice Problems

1. Simplify the ratio 12 : 18.
2. The ratio of the number of boys to girls in a class is 3:4. If there are 21 boys, how many girls are there?
3. A recipe calls for a ratio of 2 parts sugar to 3 parts flour. If you use 10 cups of sugar, how many cups of flour will you need?
4. Divide \$240 in the ratio 5:3.
5. The ratio of the width to length of a rectangle is 3:5. If the length is 20 cm, what is the width?
6. A map scale shows 1 cm represents 100 km. How many kilometers does 7.5 cm represent on the map?
7. Solve for x in the proportion $\frac{4}{5} = \frac{x}{20}$.
8. In a bag of marbles, the ratio of red marbles to blue marbles is 7:9. If there are 63 red marbles, how many marbles are there in total?

Word Problems

1. A group of students is divided into two teams. The ratio of boys to girls in the group is 5:7. If there are 50 students, how many boys and how many girls are in the group?
2. A bag contains red, green, and blue balls in the ratio 4:5:6. If the total number of balls is 390, how many balls of each color are there?
3. A car travels 120 kilometers in 2 hours. How far will it travel in 5 hours at the same speed?

Multiple-Choice Questions

1. The ratio of the number of men to women in a company is 5:3. If there are 240 employees, how many women are there?
 - A. 120
 - B. 100
 - C. 80
 - D. 90
2. The ratio of the number of apples to oranges in a basket is 2:3. If there are 30 oranges, how many apples are there?
 - A. 20
 - B. 25
 - C. 18
 - D. 15
3. The ratio of the height to the base of a triangle is 4:5. If the height is 12 cm, what is the base?
 - A. 16 cm
 - B. 15 cm
 - C. 18 cm
 - D. 20 cm
4. If the ratio of boys to girls in a school is 2:3, and there are 240 girls, how many boys are there?
 - A. 160
 - B. 200
 - C. 180
 - D. 100

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