

Year 8 Maths Worksheet: Ratios

Name: _____

Date: _____

Section A: Writing Ratios (Easy Warm-up)

Write each ratio in simplest form.

1. $6 : 12 =$ _____
2. $10 : 15 =$ _____
3. $8 : 20 =$ _____
4. $14 : 21 =$ _____
5. $9 : 27 =$ _____
6. $16 : 24 =$ _____

Section B: Writing Ratios from Situations

Write the ratio in simplest form.

7. There are 8 boys and 12 girls in a class.
Boys : Girls = _____
8. A fruit basket has 5 apples and 15 oranges.
Oranges : Apples = _____
9. A bag contains 6 red marbles and 9 blue marbles.
Red : Blue = _____
10. A recipe uses 2 cups of sugar and 6 cups of flour.
Flour : Sugar = _____

Section C: Comparing Ratios (Same or Different?)

Simplify both ratios, then state if they are **equal** or **not equal**.

11. $2 : 4$ and $3 : 6 \rightarrow$ _____
12. $5 : 10$ and $2 : 5 \rightarrow$ _____
13. $6 : 9$ and $4 : 6 \rightarrow$ _____
14. $8 : 12$ and $10 : 15 \rightarrow$ _____
15. $3 : 5$ and $6 : 10 \rightarrow$ _____

Section D: Which Ratio is Bigger?

Compare the ratios.

16. $2 : 3$ or $3 : 4 \rightarrow$ _____ is larger
17. $4 : 5$ or $5 : 6 \rightarrow$ _____ is larger
18. $3 : 8$ or $4 : 9 \rightarrow$ _____ is larger
19. $5 : 7$ or $6 : 8 \rightarrow$ _____ is larger

Section E: Dividing Quantities in a Ratio (Basic)

20. Divide 20 in the ratio $1 : 1$
Answer: _____ and _____
21. Divide 30 in the ratio $2 : 1$
Answer: _____ and _____
22. Divide 40 in the ratio $3 : 1$
Answer: _____ and _____
23. Divide 50 in the ratio $2 : 3$
Answer: _____ and _____
24. Divide 36 in the ratio $4 : 5$
Answer: _____ and _____

Section F: Dividing Quantities (Intermediate)

25. Divide \$60 in the ratio $2 : 4$

$$\frac{\boxed{}}{6} = \$20 \quad \frac{\boxed{}}{6} = \$40 \quad \frac{\boxed{}}{6} = \$10$$

parts
1 part = $\div$

26. Divide 72 apples in the ratio $5 : 7$

$$\frac{\boxed{}}{5} = \text{apples} \quad \frac{\boxed{}}{7} = \text{apples}$$

parts
1 part = $\div$
 $\text{---} =$

27. Divide 90 in the ratio 3 : 2

$$\frac{\square}{\square} = \frac{\square}{\square} = \frac{\text{parts}}{\text{1 part}} = \div$$
$$\text{---} =$$

28. Divide 84 in the ratio 3 : 4

$$\frac{\square}{\square} = \frac{\square}{\square} = \frac{\text{parts}}{\text{1 part}} = \div$$
$$\text{---} =$$

Section G: Problem Solving (Real-life Context)

29. A class has boys and girls in the ratio 3 : 2.

If there are 25 students in total, how many boys and girls are there?

30. A recipe uses flour and sugar in the ratio 4 : 1.

If 20 cups are used in total, how much flour and sugar are needed?

31. Two friends share \$45 in the ratio 2 : 3.

How much does each person get?

32. A school has red and blue houses in the ratio 5 : 7.

If there are 120 students, how many are in each house?

33. A drink is made by mixing water and juice in the ratio 3 : 1.

If you make 40 mL of drink, how much water and juice is used?

Section H: Challenge Questions

34. The ratio of cats to dogs is 2 : 3.

There are 10 more dogs than cats.

How many cats and dogs are there?

35. A sum of money is shared between A, B, and C in the ratio 2 : 3 : 5.

If the total is \$100, how much does each person receive?

36. The ratio of boys to girls is 4 : 5.

After 6 boys leave, the ratio becomes 2 : 3.

How many boys and girls were there originally?

Extension (Fast Finishers)

37. Create your own ratio problem involving sharing money. Solve it