

Ratio and Proportion Worksheet Class 6

Name: _____

Class: _____

Date: _____

A. Fill in the blanks

1. Ratio of 8 to 12 = _____
2. Ratio of 15 boys to 10 girls = _____
3. $3 : 5 =$ _____ $: 20$
4. $7 : 9 = 21 :$ _____
5. In the ratio $4 : 7$, the antecedent is _____.
6. In $5 : 8$, the consequent is _____.
7. $2 : 6$ in simplest form = _____
8. If $4 : 5 = 12 : x$, then $x =$ _____.
9. Two ratios that are equal are said to be in _____.
10. $1 : 2 = 5 :$ _____.

B. Simplify the ratios

1. $12 : 18 =$ _____
2. $20 : 25 =$ _____
3. $24 : 36 =$ _____
4. $15 : 35 =$ _____
5. $42 : 56 =$ _____
6. $45 : 60 =$ _____
7. $28 : 49 =$ _____
8. $32 : 40 =$ _____

C. Write the ratio in the required form

1. $3 \text{ m} : 6 \text{ m} =$ _____
2. $2 \text{ kg} : 500 \text{ g} =$ _____
3. $1 \text{ hour} : 20 \text{ minutes} =$ _____
4. $75 \text{ cm} : 1 \text{ m} =$ _____
5. $2 \text{ L} : 500 \text{ mL} =$ _____
6. $\text{₹}20 : \text{₹}50 =$ _____

D. Find the missing term

1. $2 : 3 = 8 :$ _____
2. $5 : 7 = 15 :$ _____
3. $4 : 9 =$ _____ $: 27$
4. $6 : 11 = 24 :$ _____
5. $7 : 8 =$ _____ $: 32$
6. $9 : 5 = 45 :$ _____
7. $3 : 4 = 18 :$ _____
8. $10 : 3 =$ _____ $: 12$

E. Are the ratios in proportion? Write Yes/No

1. $2 : 3$ and $8 : 12 \rightarrow$ _____
2. $4 : 5$ and $12 : 15 \rightarrow$ _____
3. $3 : 7$ and $9 : 14 \rightarrow$ _____
4. $5 : 8$ and $15 : 24 \rightarrow$ _____
5. $6 : 9$ and $10 : 15 \rightarrow$ _____
6. $7 : 10$ and $14 : 25 \rightarrow$ _____

F. Choose the correct answer

1. Simplest form of 18 : 24 is: (a) 2:3 (b) 3:4 (c) 4:3 (d) 6:8
2. $4 : 7 = 20 : ?$ (a) 28 (b) 30 (c) 35 (d) 40
3. Which is equivalent to 3 : 5? (a) 6:10 (b) 9:12 (c) 12:15 (d) 15:20
4. Ratio of 25 minutes to 1 hour is: (a) 5:12 (b) 12:5 (c) 25:60 (d) Both a and c
5. If 6 pens cost ₹30, one pen costs: (a) ₹4 (b) ₹5 (c) ₹6 (d) ₹10
6. 8 : 12 is equivalent to: (a) 2:3 (b) 3:2 (c) 4:5 (d) 1:3

G. Word Problems

1. A class has 18 boys and 12 girls. Find the ratio of boys to girls in simplest form.
2. A basket contains 20 apples and 15 oranges. Find the ratio of apples to oranges.
3. The ratio of red to blue balls is 3:5. If there are 15 red balls, how many blue balls are there?
4. A recipe uses flour and sugar in the ratio 4:1. If 8 cups of flour are used, how much sugar is needed?
5. Riya and Tina share ₹600 in the ratio 2:3. Find each girl's share.
6. A car travels 120 km in 2 hours at a constant speed. How far will it travel in 5 hours?
7. There are 24 students in a class. The ratio of boys to girls is 5:3. Find the number of boys and girls.
8. A map uses the scale 1 cm : 5 km. What distance does 7 cm represent?

H. True or False

- 1) 2:4 and 1:2 are equivalent ratios. _____
- 2) $5:8 = 15:24$. _____
- 3) $3:4 = 9:16$. _____
- 4) 10:15 simplifies to 2:3. _____
- 5) 4:5 and 8:10 are in proportion. _____
- 6) Ratio compares two quantities of the same kind. _____

I. Challenge Questions

1. Find x: $\frac{3}{5} = \frac{x}{25}$.
2. Find x: $\frac{7}{12} = \frac{21}{x}$.
3. The ratio of cats to dogs is 2:3. If there are 25 animals altogether, can this ratio be possible? Explain.
4. Divide 840 in the ratio 3:4.
5. Two numbers are in the ratio 5:7. Their sum is 96. Find the numbers.

6. A school has boys and girls in the ratio 4:5. If there are 180 students, find the number of boys and girls.