

Y6 Ratio Proportion

KS2 Y6 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

A bag has 6 red counters and 9 blue counters. Write the ratio of red to blue in its simplest form.

Step 1 · Red : blue

6 : 9

Step 2 · Divide both parts by the highest common factor, 3

2 : 3

Answer: 2 : 3 (for every 2 red there are 3 blue)

Check: $2 \times 3 = 6$ and $3 \times 3 = 9$ ✓

2. Now try one with the steps

A recipe uses flour and sugar in the ratio 3 : 1. You use 300 g of flour. How much sugar?

Step 1 · 3 parts of flour = 300 g

Step 2 · Sugar is 1 part

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. Simplify the ratio 8 : 12.

2. Simplify the ratio 15 : 5.

3. A pet shop has 4 cats and 10 dogs. Write the ratio of cats to dogs in its simplest form.

4. For every 3 boys in a club there are 4 girls. There are 12 boys. How many girls are there?

5. The ratio of red to blue counters is 2 : 5. There are 14 red counters. How many blue counters are there?

6. Squash and water are mixed in the ratio 1 : 4. What fraction of the drink is squash?

7. Simplify the ratio 18 : 24.

8. Write the ratio 50p : £2 in its simplest form.

9. A class has 12 boys and 18 girls. Write the ratio of girls to boys in its simplest form.

10. A model uses 3 red bricks for every 7 white bricks. It uses 21 red bricks. How many white bricks does it use?

11. $\frac{3}{8}$ of the sweets in a bag are lemon and the rest are orange. Write the ratio of lemon to orange.

12. Is the ratio 4 : 6 the same as 6 : 9? Explain.

13. A garden has 5 times daisies Write the ratio of tulips to daisies.

14. A drink is 1 part juice to 3 parts water. How much water is needed for 250 ml of juice?

15. Explain the difference between a ratio and a fraction, using an example.

4. Before you hand it in

Writing the ratio of girls to boys (18 girls, 12 boys) as 2 : 3.

The order matters. Girls to boys = $18 : 12 = 3 : 2$.

Saying red is $\frac{2}{5}$ of the counters when red : blue = 2 : 5.

The whole is $2 + 5 = 7$ parts, so red is $\frac{2}{7}$.

Simplifying 50p : £2 as 50 : 2 = 25 : 1.

Change to the same units first: $50\text{p} : 200\text{p} = 1 : 4$.