

SHARING IN A RATIO

- 1) Share 60 in the ratio 2 : 1.
- 2) Share 48 in the ratio 3 : 1.
- 3) Share 84 in the ratio 5 : 2.
- 4) Share 120 in the ratio 7 : 3.
- 5) Share 96 in the ratio 5 : 7.
- 6) Share 72 in the ratio 2 : 4 : 3.
- 7) Share 180 in the ratio 5 : 4 : 1.
- 8) Share 240 in the ratio 3 : 5 : 2.
- 9) Share 300 in the ratio 5 : 6 : 4.
- 10) £60 is shared between Alice and Bob in the ratio 2 : 1. How much does each person receive?
- 11) A prize of £90 is shared between three friends in the ratio 3 : 2 : 1. How much does each friend receive?
- 12) A £200 bonus is split between Isabella and Serina in the ratio 1 : 3. Isabella gives half of her share to Charlie and Serina gives one third of her share to Charlie. How much does Charlie receive?
- 13) A £180 bill is split between two people in the ratio 3 : 2. The person who pays the larger portion leaves a 12% tip and the person who pays the smaller portion leaves a 5% tip. What is the total tip given?
- 14) A shade of purple paint requires mixing paint colours red, blue and white in the ratio 5 : 3 : 2. 800 mL of purple paint are needed to paint a room. If a store currently has the following quantities in stock, is there enough to make the purple paint?

400 mL of red paint
 350 mL of blue paint
 100 mL of white paint
- 15) A flavoured sparkling water recipe calls for 3 parts elderflower syrup to 5 parts sparkling water. A restaurant has 210 mL of elderflower syrup and 500 mL of sparkling water. What is the maximum amount of drink the restaurant can make?
- 16) The ratio of apples to oranges is 2 : 3. If there are 20 apples, how many oranges are there?
- 17) The ratio of cats to dogs in an animal day care centre is 3 : 2. If there are 24 dogs, how many cats are there?
- 18) John and Sarah split a bill in the ratio 5 : 3. John pays £75. How much does Sarah pay?
- 19) A cookie recipe calls for flour, butter and sugar in the ratio 5 : 4 : 1. The recipe calls for 60 grams of butter. How much flour and sugar are needed?
- 20) The ratio of teachers to students is 1 : 20. There are 100 teachers. Each of the students will be split into groups of 40. How many groups of students will there be?

21) Bob and Dave share money in the ratio 3 : 1.
Bob has £40 pounds more than Dave. How much does Bob have?

22) Sara and Jill share sweets in the ratio 5 : 3.
Sara has 16 more sweets than Jill. How many sweets do they each have?

23) Max and Alex share money in the ratio 4 : 1.
Max has £45 more than Alex. How much does Max have?

24) Mia and Noah share stickers in the ratio 7 : 4.
Mia has 27 more stickers than Noah. How many stickers do they each have?

25) Ava, Ben and Peggy share pens in the ratio 6 : 5 : 1. Ava has 22 more pens than Ben. After they distribute the pens, Ava gives 12 pens to Peggy. How many pens do they each have?

26) Oliver and Grace share marbles in the ratio 7 : 9. Oliver has 32 less marbles than Grace. After they receive their shares, Grace gives 10 marbles to Oliver. How many marbles does each end up with?

27) Angles in a triangle are in the ratio 3 : 4 : 5.
Work out the size of the smallest angle.

28) Ethan has 270 sweets. He has only strawberry sweets, mint sweets, orange sweets and cola sweets.

20% of the sweets are strawberry sweets.
 $\frac{1}{3}$ of the sweets are mint sweets.
The ratio of orange sweets to cola sweets is 2 : 7.

Work out the number of cola sweets Ethan has.

29) Liam reads 256 pages each week. He spends 25% of his reading time on science books and the rest on novels. The ratio of pages he reads in mystery novels to fantasy novels is 3 : 5. Work out how many pages Liam reads in fantasy novels.

30) Marcus earns £4000 each month after tax. He saves 28% of his salary and spends the rest. The ratio of the amount he spends on rent to the amount he spends on other expenses is 11 : 9.

$\frac{3}{8}$ of the other expenses are utilities.

Marcus splits what is left equally into an emergency fund and entertainment.

Work out the difference between how much Marcus spends on utilities and how much goes into his emergency fund.