

- (1) Simplify the ratio 5:15:10
- (2) If 8 pens cost 40p how much would 11 cost?
- (3) Share \$32 in the ratio 5:2:1
- (4) Alf and Bert share some money in the ratio 2:3. Given that Bert has £36, find how much money was shared altogether.
- (5) Dave, Ed and Fred share money in the ratio 2:3:  $x$ .  
Given that Dave has £8 ad Fred has £24, find the value of  $x$ .
- (6) Sue needs 200g of sugar to make 8 cakes. Given that she has 360g of sugar in the cupboard, find the maximum number of cakes she can make.
- (7) 30kg of sand is split into 2 piles in the ratio 3:1. Find out how much more sand was in the larger pile than the smaller pile.
- (8) 100g of sugar costs £1.26. 130g of sugar costs £1.59. Find which is better value for money.
- (9) Simplify the ratio 6:9:18
- (10) Millie, Nikki and Olive share sweets in the ratio 3:4:1. Given that Nikki has 28 sweets, find out how many more sweets Millie has than Olive.
- (11) The scale on a map is 1:100. Given that a line on the map is 4cm long find the length of the line in real life.
- (12) Find out which is worth more: (a) 10% of £30 of the smallest share of £50 if it's shared in the ratio 7:2:1.
- (13) Max can buy 12 pens for 84p. How many can he buy with £1?
- (14) £12 is share in a ratio 3:2:2:1. Find the difference between the largest and smallest share.
- (15) In a school the ratio of boys to girls in year 11 is 4:5. Given that there are 80 girls in year 11, find how many pupils there are in year 11.
- (16) In a different school there are 120 pupils in the year. John says the ratio of boys to girls is 5:4. Explain why he is wrong.
- (17) Fred, Gill and Harry share some money in the ratio 2:3:5. Given that Gill has £120, find out how much Harry has.
- (18) In a recipe for 3 cakes you need 12 eggs. Find out how many eggs you need for 8 cakes.
- (19) John has 66 eggs. How many of the cakes in question 18 can he make?
- (20) Explain why £20 cannot be shared in the ratio 3:2:1 between 3 people.
- (21) Write the ratio 3:5 in the form (a) 1:  $n$  and (b)  $n$  : 1
- (22) A cocktail has orange juice, lemonade and alcohol in the ratio 74:25:1. Given that there is half a litre of the cocktail, find out how many ml of lemonade there is in the total.
- (23) For every 3 rainy days there are two sunny days. Write the ratio of sunny days to rainy days.
- (24) Money is shared between 3 people in a ratio where one person gets 3 parts, another gets 5 parts and the last person gets two parts. Given that the last person has £30, find the value of the largest share.
- (25) Write the ratio of vowels to consonants in the alphabet and explain why the ratio can't be simplified.