

Max's Fruit Salad Ratio Challenge

Learning objective: To solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.

Read the story below carefully. Use Max the monkey's method of identifying the ratio of ingredients to solve the maths problems. Show your working out clearly.

Max the monkey is preparing a giant fruit salad for a forest picnic. To make his special recipe, he always uses a specific ratio. For every 2 juicy strawberries, he must add 3 sweet blueberries to the bowl. Max keeps his recipe balanced so that every guest gets the exact same flavour experience. Today, he is making a much larger batch for all his friends in the forest.

Word bank: ratio · proportion · quantity · multiply · divide · equivalent · part · whole

1. Max has 4 strawberries. Using the ratio of 2 strawberries to 3 blueberries, how many blueberries does he need to add? Explain your thinking. (2 marks)

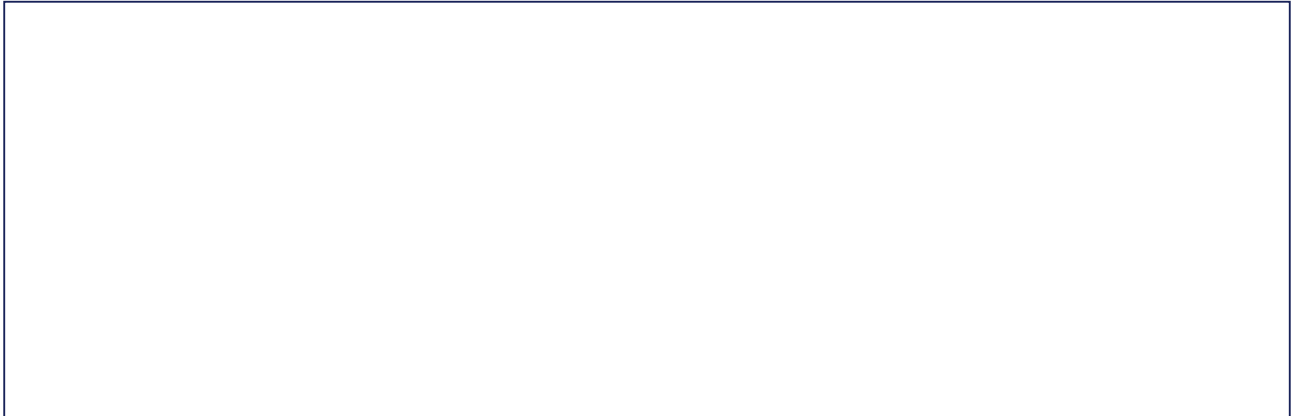
2. If Max uses 10 strawberries, how many blueberries will he need? Show your working out. (2 marks)

3. Max has 15 blueberries. Based on his ratio of 2:3, how many strawberries should he have used? (2 marks)

4. If Max decides to double his entire recipe (using 4 strawberries for every 6 blueberries), how many pieces of fruit will be in the bowl in total? (2 marks)

5. Max buys a punnet of strawberries for £2.00. If he needs to buy enough to make a recipe using 20 strawberries, and each punnet contains 5 strawberries, how much will he spend in total? (2 marks)

Draw: Draw a bowl of fruit salad showing the correct ratio of 2 strawberries to 3 blueberries. Then, draw a second bowl showing what the ratio would look like if you tripled the recipe.



Extension challenge: Max wants to add apple slices to his recipe. He decides the ratio should be 2 strawberries : 3 blueberries : 1 apple slice. If he uses 8 strawberries, how many blueberries and how many apple slices does he need?