

Max's Market Stall: A Fractions Challenge

Learning objective: To identify, name, and write equivalent fractions, and compare and order fractions whose denominators are all multiples of the same number.

Read the story about Max the monkey and his fruit stall. Use your knowledge of fractions to help him solve his maths puzzles. Show your working out clearly.

Max the monkey has opened a fruit stall at the forest market. He is selling bags of mixed fruit. Max loves maths, so he always organises his stock using fractions. Today, Max has 20 pieces of fruit in his display. 5 of the pieces are shiny red apples, 10 are yellow bananas, and 5 are purple plums. Max wants to make sure all his customers understand the value of their fruit bags. He knows that $\frac{5}{20}$ is the same as $\frac{1}{4}$ of his total fruit. He also has a special deal: if a customer buys a bag of fruit for £4.00, they get $\frac{1}{2}$ off the price if they can correctly name an equivalent fraction for $\frac{3}{6}$.

Word bank: numerator · denominator · equivalent · simplify · fraction · part · whole

1. Max has 20 pieces of fruit in total. What fraction of the fruit are plums? Simplify your answer to its lowest terms. (2 marks)

2. Max says that $\frac{10}{20}$ of his fruit are bananas. Is this the same as $\frac{1}{2}$? Explain your reasoning. (2 marks)

3. If a customer buys a bag of fruit for £4.00 and gets $\frac{1}{2}$ off, how much do they pay? Show your calculation. (2 marks)

4. Find two fractions that are equivalent to $\frac{2}{5}$. (2 marks)

5. Max has another basket with 12 oranges. If he sells $\frac{3}{4}$ of them, how many oranges has he sold? (2 marks)

Draw: Draw a basket containing 20 pieces of fruit. Colour $\frac{1}{4}$ of them red (apples), $\frac{1}{2}$ of them yellow (bananas), and $\frac{1}{4}$ of them purple (plums).



Extension challenge: Max wants to create a new, larger display with 40 pieces of fruit. If he wants the same proportions ($\frac{1}{4}$ apples, $\frac{1}{2}$ bananas, $\frac{1}{4}$ plums), how many of each fruit will he need? Write your answers as fractions of the new total.