

Max's Market Stall: The Fraction Challenge

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

Max the monkey is running a fruit stall at the forest market. He has labelled his produce with fraction prices, but he has mixed them all up! Your task is to help Max organise his stock. For each question, you must simplify the fraction, find its equivalent, or compare values to ensure he is charging the correct amount in £. Show your working out clearly.

Word bank: numerator · denominator · equivalent · simplify · fraction · value · multiple · common

1. Max has 12 apples. He sells $\frac{4}{12}$ of them to a hedgehog. Simplify this fraction to its lowest terms. Explain why this is equivalent to the original fraction. (2 marks)

2. Max sells a bunch of bananas for $\frac{3}{5}$ of a pound (£0.60). If he wants to sell a smaller bunch for an equivalent fraction with a denominator of 10, what would the new fraction be and how much would it cost in pence? (2 marks)

3. Compare these two prices: $\frac{3}{4}$ of a pound and $\frac{7}{8}$ of a pound. Which is greater? Justify your answer by finding a common denominator. (2 marks)

4. Max has a basket of pears. He says $\frac{2}{3}$ of the pears are ripe. If he has 18 pears in total, how many are ripe? Show your calculation. (2 marks)

5. What might happen if Max accidentally swapped a label of $\frac{2}{5}$ for $\frac{2}{10}$? Would the customer pay more or less? Explain your reasoning. (2 marks)

6. Create your own 'Market Fraction' problem. If a punnet of strawberries costs $\frac{5}{6}$ of a pound, write an equivalent fraction with a denominator of 12 and calculate the cost in pence. (2 marks)

Draw: Draw a basket containing 12 pieces of fruit. Colour $\frac{3}{4}$ of the fruit red to represent apples and $\frac{1}{4}$ of the fruit yellow to represent lemons.



Extension challenge: Imagine Max starts selling 'fraction bundles'. If he offers a bundle that is $\frac{1}{2} + \frac{1}{4}$ of a pound, what is the total cost in pence? Can you find a way to express this total as a single fraction of a pound? Justify why these two representations are mathematically identical.