

Max's Market Stall: A Fraction Adventure

Learning objective: To recognize, find and write fractions of a discrete set of objects and solve problems involving fractions of amounts.

Read about Max the monkey's busy day at the market. Use your knowledge of division and multiplication to help him calculate his stock. Show your working out clearly.

Max the monkey is setting up his fruit stall at the forest market. He has a crate containing 24 pieces of fruit to sell. He has 8 shiny apples, 8 golden pears, and 8 bunches of grapes. Max loves to organize his stall using math! He notices that $\frac{1}{3}$ of his fruit are apples. If he sells $\frac{1}{4}$ of his total fruit to a hungry squirrel, how many pieces of fruit does he have left? Max also has a special offer: he sells a mixed bag for £4.50. If a customer buys half of a bag, how much do they pay?

Word bank: numerator · denominator · fraction · equivalent · quantity · partition · remainder · total

1. Max has 24 pieces of fruit. If he sells $\frac{1}{4}$ of the total fruit to the squirrel, how many pieces of fruit does the squirrel buy? (2 marks)

2. After selling the fruit to the squirrel, Max has some left. What fraction of the original 24 pieces remains? Simplify your answer. (2 marks)

3. Max sells a bag of fruit for £4.50. If a customer buys half of the bag, how much change would they get from a £5.00 note? (3 marks)

4. Max decides to group his 24 pieces of fruit into 8 equal sets. What fraction of the total fruit is in each set? Justify your answer. (2 marks)

5. Explain why $\frac{2}{8}$ of the total fruit is the same as $\frac{1}{4}$ of the total fruit. You may use a diagram to support your explanation. (3 marks)

Draw: Draw a basket containing 24 pieces of fruit (apples, pears, and grapes). Color $\frac{1}{4}$ of the fruits red and $\frac{3}{4}$ of the fruits green to show your understanding of fractions.



Extension challenge: What might happen to the fractions if Max added 6 more bananas to his 24 pieces of fruit? Compare and contrast the new fraction of apples with the original fraction. Justify your reasoning using calculations.