

Max's Market Stall: Exploring Decimals

Learning objective: To recognise and write decimal equivalents of any number of tenths or hundredths.

Read the story of Max the monkey's fruit stall. Use your knowledge of place value to solve the problems, ensuring you use the correct notation for pounds (£) and pence.

Max the monkey is very busy today! He has opened a fruit stall in the forest to practise his maths. He sells shiny red apples for £0.10 each and exotic star-fruit for £0.01 per slice. Max knows that 10 slices of star-fruit make one whole pound if they are grouped, but he is currently selling them as small, individual portions. He needs to keep his stall tidy and his prices accurate. Yesterday, a curious squirrel bought five apples and seven slices of star-fruit. Max had to work out the total cost by adding the tenths (the apples) and the hundredths (the star-fruit) together.

Word bank: decimal · fraction · hundredth · tenth · place value · equivalent · notation · digit

1. If Max sells an apple for £0.10 and a slice of star-fruit for £0.01, write the total cost for 3 apples and 8 slices of star-fruit as a decimal. (2 marks)

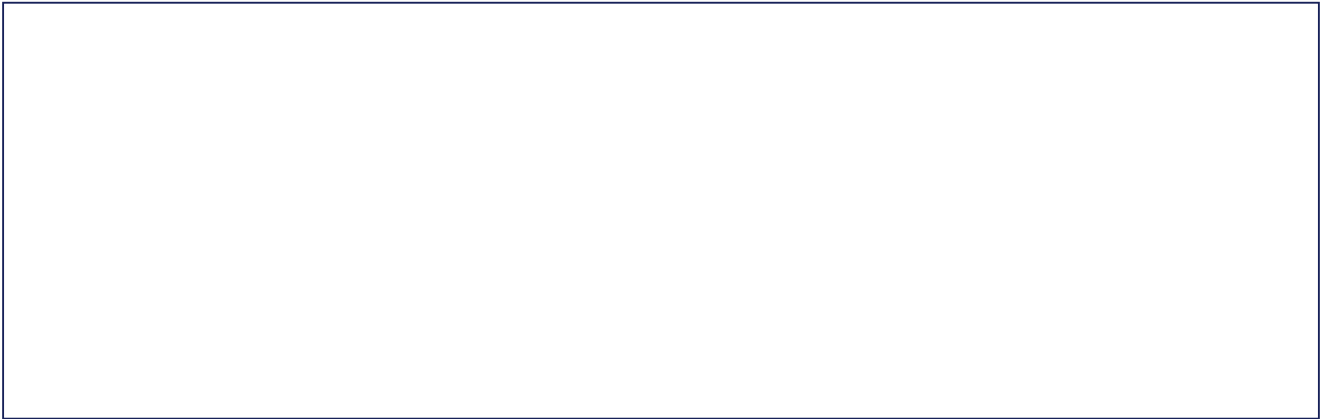
2. Explain why £0.50 is the same value as £0.5. Justify your answer using your knowledge of place value columns. (3 marks)

3. Max has a basket of 100 star-fruit slices. If he sells 25 of them, what decimal of the whole basket has he sold? Write your answer as a decimal. (2 marks)

4. Compare and contrast 0.4 and 0.04. Which digit is in the tenths column, and which is in the hundredths column? (3 marks)

5. What might happen to the total price if Max decided to change the price of a star-fruit slice to £0.10 instead of £0.01? Explain the impact on his place value calculations. (3 marks)

Draw: Draw a basket containing 10 apples and 100 star-fruit slices. Label the apples '0.10 each' and the star-fruit '0.01 each'. Show how you would group them to make £1.00.



Extension challenge: Max wants to create a 'Super Bundle' that costs exactly £1.55. Write a list of how many apples (£0.10) and star-fruit slices (£0.01) he could include in this bundle. Can you find two different combinations to reach this total?