

Max's Tropical Market Maths

Learning objective: To solve division problems involving multi-digit numbers using formal written methods, including remainders.

Read the passage below and use your knowledge of division to help Max solve his market stall calculations. Show all of your working out clearly.

Max the monkey has been busy at the tropical fruit market. He has gathered a large crate containing 1,484 golden mangoes. He wants to pack these into boxes, with each box holding exactly 12 mangoes. Any mangoes left over will be given to the forest animals as a treat. Later, Max sells a batch of 864 star-fruits to 24 local restaurants, ensuring that each restaurant receives an equal share. Finally, Max counts his earnings of £2,535 from the morning sales, which he plans to split equally among 15 community projects.

Word bank: divisor · dividend · quotient · remainder · partitioning · bus stop method

1. How many full boxes of mangoes can Max pack, and how many mangoes will be left over for the forest animals? (2 marks)

2. If Max distributes 864 star-fruits equally between 24 restaurants, how many star-fruits will each restaurant receive? (2 marks)

3. Max divides his total earnings of £2,535 equally among 15 community projects. How much money does each project receive? (2 marks)

4. Explain how you would check your answer to the star-fruit question using multiplication. (2 marks)

5. If Max had 1,500 mangoes instead of 1,484, would the number of left-over mangoes increase or decrease? Show your calculation. (2 marks)

Draw: Draw a picture of Max the monkey standing behind a market stall piled high with mangoes and star-fruits, using a clipboard to calculate his division sums.



Extension challenge: Max decides to increase the price of his star-fruit batches. If he wants each of the 24 restaurants to pay a total of £960 for their share of the fruit, how much should he charge per restaurant? Show your calculation.