

Max's Mathematical Market Challenge

Learning objective: To recall and use division facts for multiplication tables up to 12×12 and solve problems involving remainders.

Help Max the monkey organise the community market. Use your knowledge of times tables and written division methods to solve these problems. Show your working out clearly.

Word bank: remainder · quotient · divisor · dividend · partitioning · calculate

1. Max has 84 shiny conkers to share equally among 6 baskets. How many conkers will be in each basket? Show your partitioning method. (2 marks)

2. A crate of apples holds 96 pieces of fruit. If a customer buys them in bags of 8, how many bags can be filled? Explain why there is no remainder. (2 marks)

3. The market stall sells packets of sunflower seeds for £4 each. If a customer spends £52, how many packets do they receive? Use the inverse operation to check your answer. (2 marks)

4. Max has 77 golden feathers to arrange in groups of 9 for a display. How many full groups can he make, and how many feathers will be left over (the remainder)? (2 marks)

5. Compare and contrast the division calculation $72 \div 4$ and $72 \div 6$. Justify why the quotient of the second calculation is smaller than the first. (3 marks)

6. What might happen if Max tried to divide 95 items into 7 equal groups? Calculate the exact remainder and explain what it represents in the context of the market. (3 marks)

Draw: Draw a scene at Max's market stall showing 84 conkers being divided into 6 colourful baskets.



Extension challenge: Design your own 'Market Challenge' word problem for a friend. Your problem must involve a 3-digit dividend and a single-digit divisor that results in a remainder. Provide a separate answer key for your problem.