

## Max's Mathematical Division Challenge

*Learning objective: To accurately divide numbers up to four digits by a one-digit number using formal written methods, including remainders.*

Max the monkey has been busy gathering supplies for his jungle workshop. Use your knowledge of short division (bus stop method) to solve these problems. Show your working out clearly in the boxes provided, ensuring you account for any remainders as fractions or decimals where appropriate.

*Word bank: dividend · divisor · quotient · remainder · partition · short division · calculate · justify*

**1. The Fruit Stalls: A farmer has 1,248 mangoes to pack into 6 crates. How many mangoes go into each crate? Show your formal written method. (2 marks)**

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**2. Explain why it is important to place your digits in the correct columns when performing short division with a four-digit dividend. (2 marks)**

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**3. The Art Supplies: Zara has 2,475 beads to share equally between 7 art projects. How many beads does each project receive, and how many are left over? (3 marks)**

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**4. Compare and contrast: How does dividing by 8 differ from dividing by 4? Justify your answer using examples. (3 marks)**

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**5. Max's Pocket Money:** Max has £3,500 to spend on 9 new climbing ropes. If each rope costs the same amount, what is the maximum he can spend per rope? Give your answer in pounds and pence. (3 marks)

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**6. What might happen if you miscalculate the remainder in a real-world sharing problem? Explain the consequences for the final group. (3 marks)**

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*Extension challenge: Creative Challenge: Invent your own multi-step division word problem involving a group of our BookFlik characters. Ensure the total dividend is at least 2,000 and the divisor is a prime number. Write the solution to your own problem on a separate sheet of paper.*