

Mastering Long Division with Max

Learning objective: To divide numbers up to four digits by a two-digit whole number using the formal written method of long division.

Max the monkey has been busy gathering supplies for his jungle maths club. Help him solve these division puzzles using the formal long division method. Show your working out clearly, including your remainders where necessary.

Max has 1,248 delicious mangoes to share equally among 24 jungle friends. He also has 3,562 shiny pebbles to distribute into 15 equal piles for his mosaic project.

Word bank: dividend · divisor · quotient · remainder · long division · partitioning · calculation

1. Max needs to share 1,248 mangoes equally between 24 friends. How many mangoes does each friend receive? (3 marks)

2. Calculate $3,562 \div 15$. Express your answer as a whole number with a remainder. (3 marks)

3. Explain why it is important to record the remainder when dividing items that cannot be split into fractions, such as whole mangoes. (2 marks)

4. Max has £576 to buy new maths equipment. If each geometry set costs £12, how many sets can he purchase? Justify your answer. (3 marks)

5. Compare and contrast dividing a 4-digit number by a 1-digit number versus a 2-digit number. What makes the 2-digit divisor more complex? (3 marks)

Draw: Draw a diagram showing 1,248 mangoes being split into 24 equal groups. Use labels to show how you partitioned the large number to make the division easier.



Extension challenge: What might happen if Max had 1,250 mangoes instead of 1,248? If he still had 24 friends, how would the remainder change the way he distributes the fruit? Write a short paragraph explaining your reasoning.