

Max the Monkey's Mathematical Division Challenge

Learning objective: To solve problems involving division, including using formal written methods (bus stop method) and interpreting remainders in real-life contexts.

Use your knowledge of times tables and formal written division to help Max the Monkey solve these puzzles. Show your working out clearly for each calculation.

Max the Monkey is organising a jungle harvest festival. He needs to distribute fruit, equipment, and supplies into equal groups. Remember to check if your answer needs a remainder or if you should round up to the next whole number depending on the context.

Word bank: dividend · divisor · quotient · remainder · partition · bus stop method · calculate · estimate

1. Max has 468 bananas to share equally among 4 baskets. How many bananas will be in each basket? Show your calculation using the bus stop method. (2 marks)

2. A crate of pineapples costs £936. If there are 8 pineapples in a crate, what is the cost of one individual pineapple? Justify your answer by showing your division. (2 marks)

3. Max has 745 mangoes. He wants to pack them into boxes that hold 6 mangoes each. How many full boxes can he fill? Explain what happens to the remaining mangoes. (3 marks)

4. Compare and contrast: If Max has 520 berries to divide by 5, and then 520 berries to divide by 10, explain why the quotient changes in the way that it does. (3 marks)

5. Max is buying party hats that cost £4 each. He has a budget of £150. What is the maximum number of hats he can purchase? Explain why you cannot have a remainder in this specific context. (3 marks)

Draw: Draw a scene where Max the Monkey is carefully sorting his fruit into equal piles. Label each pile with a division equation that represents the number of items in that group.



Extension challenge: Max has 872 coconuts. He wants to divide them into groups so that there are no remainders at all. Find three different divisors (excluding 1 and 872) that will divide 872 perfectly. Write a short paragraph explaining the rule you used to test if these numbers were divisible by 872.