

Max's Magnificent Mental Math Challenge

Learning objective: To apply mental strategies to solve addition, subtraction, multiplication, and division problems efficiently.

Help Max the monkey solve these number puzzles. Use your mental math skills to calculate the answers without using written column methods. Show your reasoning where required.

Max the monkey loves to organize his fruit collection. He uses his sharp mind to quickly work out how many pieces of fruit he has, what he needs to buy, and how to share his snacks fairly with his friends.

Word bank: estimate · partition · strategy · multiple · remainder · inverse · calculate · efficient

1. Max has 47 bananas and buys 35 more. Explain the mental strategy you would use to calculate the total number of bananas quickly. (2 marks)

2. If Max has £8.50 and spends £3.75 on a basket of mangoes, how much change should he receive? Show your mental working out. (2 marks)

3. Max has 4 packs of 12 apples. He decides to share them equally among 6 friends. How many apples does each friend receive? Justify your answer. (2 marks)

4. Compare and contrast: Why is it often more efficient to use the 'near number' strategy (e.g., adding 20 and subtracting 1) when adding 19, rather than counting on in ones? (3 marks)

5. Max has 72 stickers. He wants to put them into rows of 8. How many rows will he have? What might happen if he had 75 stickers instead? (3 marks)

Draw: Draw a picture of Max the monkey sitting under a tree, surrounded by groups of fruit that represent a multiplication equation, such as 3 groups of 5 oranges.



Extension challenge: Max says: 'If I know that $6 \times 7 = 42$, I can solve any related division or multiplication problem!' Write a short paragraph explaining how Max can use this fact to find $420 \div 6$ or 60×7 . Create your own complex mental math riddle for a partner to solve.