

Year 5 Mathematics: Mastering Addition

Learning objective: To demonstrate proficiency in adding numbers with more than four digits, including decimals and money, using formal written methods and mental strategies.

Read each question carefully. Show your working out for all calculations to ensure you gain method marks. Write your final answers clearly on the lines provided.

Max the monkey is helping the BookFlik group organise their summer fair. He needs to calculate the costs for different stalls and prizes to ensure they stay within their budget. Use your knowledge of addition to help Max solve these puzzles.

Word bank: column addition · place value · decimal point · exchange · total · sum · estimate

1. Max has 45,672 red balloons and 28,945 blue balloons. Calculate the total number of balloons Max has for the fair. (2 marks)

2. Calculate the sum of £124.50, £89.75, and £210.25. Ensure your decimal points are aligned. (2 marks)

3. Complete the missing digits in this addition: $4_ , 321 + 25 , _48 = 70 , 369$. Explain the process of 'exchanging' you used to solve this. (3 marks)

4. Pip the caterpillar is collecting words. He found 12,400 words in his library and 15,850 in his garden. How many more words would he need to reach a target of 40,000 words? (3 marks)

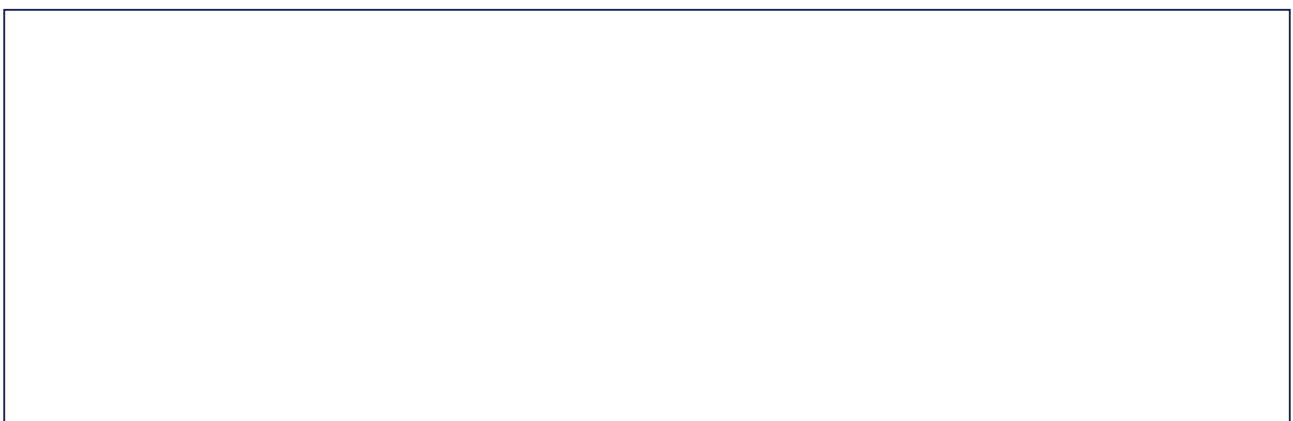
5. Nova the owl is stargazing. On Monday, she counted 145,600 stars. On Tuesday, she counted 23,450 more stars than on Monday. Calculate the total number of stars Nova counted over the two nights. (3 marks)

6. Compare and contrast the methods of mental addition versus formal column addition. When is it more efficient to use a mental strategy instead of a written method? Justify your answer with an example. (4 marks)

7. Max has a budget of £1,000 for the fair. He buys a game for £345.60, a snack stall for £210.45, and a prize crate for £150.90. What might happen if Max decides to add a fourth item that costs £300.00? Calculate the new total and discuss whether he stays within his budget. (5 marks)

8. Rosa the parrot says: 'If I add two 5-digit numbers, the answer must always be a 6-digit number.' Is she correct? Prove your answer using an example. (3 marks)

Draw: Draw a diagram representing the number 1,245 using base-10 blocks (thousands, hundreds, tens, and ones) to help Max visualise the total.



Extension challenge: Total: /25. Imagine you are organising a school event. Create your own multi-step addition word problem involving at least three different prices in pounds and pence. Challenge a partner to solve it and include an answer key.