Grade 5 Math Assessment: Problem Solving Adventures

Learning objective: To solve multi-step problems involving all four operations, fractions, percentages, and money.

Read each question carefully. Show your working out in the space provided, as method marks may be awarded even if your final answer is incorrect. Use £ for currency.

Max the monkey is organising a jungle fair to raise money for the animal sanctuary. He needs your help to manage the accounts and plan the day.

Word bank: calculate · operation · remainder · percentage · difference · total · factor

1. Max is selling tickets for the raffle. Each ticket costs 45p. If he sells 120 tickets, how much money has he raised in total? Give your answer in pounds (£). (2 marks)

2. Pip the caterpillar buys 3 packs of glitter pens for £4.25 each and 2 rolls of craft tape for £1.60 each. How much change does Pip receive from a £20 note? (3 marks)

3. Ellie the elephant has a collection of 480 historical postcards. She decides to donate 25% of them to the school library and keep the rest. How many postcards does she have left? (3 marks)

4. Kit the fox is setting up a computer game stall. He has 156 tokens to share equally among 6 groups of children. How many tokens does each group receive? (2 marks)

5. Zara the zebra is painting patterns on stalls. Each stall takes 45 minutes to paint. If Zara starts at 09:15 and paints 5 stalls with a 15-minute break in between each one, what time will she finish? (5 marks)

6. Nova the owl is observing stars. On Monday, she counted 142 stars. On Tuesday, she counted 36 more than on Monday. On Wednesday, she counted half as many as Tuesday. How many stars did she count over the three nights in total? (5 marks)

Draw: Draw a bar model to represent the total number of stars Nova counted on Monday and Tuesday combined.

Extension challenge: Explain how you checked your answer for the final question. How would your total change if Nova counted 10 fewer stars on Monday? Total: /25