

Max's Festive Maths Challenge

Learning objective: To apply Year 6 mathematical skills including arithmetic, ratio, and multi-step problem solving within a festive context.

Read each question carefully. Show your working out clearly, as marks may be awarded for your method even if the final answer is incorrect. Ensure all money answers are written in pounds and pence format.

Max the monkey is helping the forest animals prepare for their annual Winter Feast. He has been tasked with managing the budget for decorations, food supplies, and gift wrappings to ensure every animal has a wonderful celebration.

Word bank: percentage · ratio · calculate · estimate · dividend · equivalent

1. Max buys 15 boxes of fairy lights. Each box costs £4.75. Calculate the total cost of the fairy lights. (2 marks)

2. The animals decide to make a festive fruit punch. The ratio of orange juice to cranberry juice must be 3:2. If they use 12 litres of orange juice, how many litres of cranberry juice do they need? (2 marks)

3. A shop offers a 20% discount on all gift wrap. If a roll of paper usually costs £3.50, what is the new sale price of one roll? (3 marks)

4. Max has a budget of £120.00 for party crackers. If each box of crackers costs £8.50, how many full boxes can he buy, and how much change will he have left? (4 marks)

5. The forest feast is attended by 144 animals. They are seated at long tables that hold 12 animals each. How many tables are required? If each table needs a decorative centrepiece costing £5.25, what is the total cost for the centrepieces? (4 marks)

6. Max wants to distribute 260 festive treats equally among 20 young forest creatures. Explain the calculation you would use to find out how many treats each creature receives and provide the final answer. (5 marks)

7. If Max saves £15.50 each week for 8 weeks, does he have enough to buy a £120.00 winter sled for the group? Show your calculation and justify your answer. (5 marks)

Draw: Draw a symmetrical pattern for a snowflake that Max might use to decorate the feast hall, ensuring it has at least four lines of symmetry.



Extension challenge: Total: /25