

Max's Festive Feast: A Christmas Maths Challenge

Learning objective: To apply Year 5 mathematical skills including decimals, multi-step word problems, and measurements within a festive, real-world context.

Help Max the monkey prepare for his Christmas party! Answer these ten questions to ensure everything is ready for the celebration. Show your working out clearly.

Answer Key: 1. C (£14.60), 2. False (The total is 6.5kg), 3. £2.35, 4. B (24), 5. True, 6. 180 degrees, 7. A (1.25m), 8. 48, 9. False (It is a composite number), 10. 15

Word bank: Decimal · Perimeter · Estimation · Product · Quotient · Calculation · Budget

1. Max buys 4 boxes of crackers at £3.65 each. How much does he spend in total? A) £12.60 B) £13.60 C) £14.60* D) £15.60 (1 mark)

2. True or False: A turkey weighing 4.2kg and a bag of potatoes weighing 2.3kg have a combined mass of exactly 6.5kg. (1 mark)

3. If a festive ribbon costs £9.40 for 4 metres, what is the cost of 1 metre? (1 mark)

4. Max has 144 mince pies. He wants to share them equally among 6 friends. How many pies does each friend get? A) 22 B) 24* C) 26 D) 28 (1 mark)

5. True or False: A star-shaped decoration with 5 equal sides is a regular pentagon. (1 mark)

6. Max is decorating a straight mantelpiece. If he places a bauble at a 90-degree angle to the wall, what is the total angle if he places another one to make a straight line? (1 mark)

7. A piece of tinsel is 5 metres long. Max cuts it into 4 equal pieces. How long is each piece? A) 1.25m* B) 1.5m C) 1.75m D) 2m (1 mark)

8. Max counted 6 boxes of baubles. Each box contains 8 baubles. How many baubles are there in total? (1 mark)

9. True or False: The number 13, representing the number of days until the party, is a prime number. (1 mark)

10. If Max has £50 and spends £35 on gifts, how much money does he have left? (1 mark)

Draw: Draw a festive scene where Max the monkey is measuring a Christmas tree using a ruler. Include at least three geometric shapes as decorations on the tree.



Extension challenge: 1. Explain why it is important to check the units of measurement (e.g., grams vs kilograms) when following a Christmas cake recipe. 2. Compare and contrast the properties of a 2D star shape and a 3D bauble (sphere). 3. If Max had a budget of £100, justify how he could spend it across food, decorations, and gifts, ensuring he uses at least three different types of mathematical operations. 4. What might happen if Max miscalculated the number of guests by 15%? 5. If the cost of chocolate coins increased by 20%, how would you adjust the budget? 6. Create your own word problem involving a 'Christmas party' scenario that requires a multi-step calculation, then ask a partner to solve it.