

Max's Festive Math Challenge

Learning objective: To apply Grade 3 mathematical skills including money, multiplication, division, and geometry within a seasonal context.

Help Max the monkey solve these holiday-themed puzzles! Read each question carefully, show your working out, and remember to include the £ sign for money questions.

Answer Key: 1. A (£15.60), 2. False (A square has four equal sides), 3. 24, 4. C ($4 \times 8 = 32$), 5. True, 6. £2.50, 7. 6, 8. B (12:00), 9. False (It is 300cm), 10. 15. Greater Depth Answers: 1. £14.40 difference. 2. Justification: Perimeter is the boundary; area is the space inside. 3. 120cm. 4. Explain: $8 \times 6 = 48$. 5. Compare: Both are quadrilaterals. 6. What if: The perimeter would double.

Word bank: Product · Quotient · Symmetry · Estimate · Total · Difference · Calculation · Perimeter

1. Max buys 3 packs of baubles at £5.20 each. What is the total cost? A) £15.60* B) £15.00 C) £16.60 D) £14.60 (1 mark)

2. True or False: A perfectly square present box has four equal sides and four right angles. (1 mark)

3. If there are 4 advent calendars, each with 6 chocolates, how many chocolates are there in total? (1 mark)

4. Which calculation shows the number of cookies if 4 tins hold 8 cookies each? A) $4+8$ B) $8/4$ C) 4×8 * D) $8-4$ (1 mark)

5. True or False: A snowflake with six identical points shows rotational symmetry. (1 mark)

6. A box of crackers costs £7.50. Max pays with a £10 note. How much change does he receive? (1 mark)

7. Divide 42 festive stickers equally among 7 friends. How many stickers does each friend get? (1 mark)

8. Max starts decorating at 11:15 am and finishes at 12:15 pm. How long did it take? A) 45 mins B) 60 mins* C) 90 mins D) 30 mins (1 mark)

9. True or False: A piece of tinsel measuring 3 metres is the same length as 30cm. (1 mark)

10. If 5 snowmen each have 3 buttons, how many buttons are there altogether? (1 mark)

Draw: Draw a star at the top of a tree. Ensure the star is perfectly symmetrical, using a ruler to keep your lines straight and equal in length.



Extension challenge: 1. If a luxury hamper costs £30.00 and a basic one costs £15.60, calculate the difference. 2. Justify why the perimeter of a rectangular wrapping paper sheet is different from its area. 3. A festive ribbon is 1.2m long. Convert this into centimetres. 4. Explain why multiplying by 6 is the same as multiplying by 3 and then doubling the result. 5. Compare and contrast the properties of a square-based pyramid gift box and a cube gift box. 6. What might happen to the cost of a bulk order of 10 items if the price of one item increased by 50p?