# Max’s Midnight Market Maths

*Learning objective: To solve multi-step problems involving addition, subtraction, multiplication, and division with money.*

Max the monkey has been helping at the village Autumn Fair. Use your mathematical skills to help him calculate the totals for the spooky-themed items sold at the stalls. Show your working clearly for every calculation.

At the Autumn Fair, Max has been busy managing the 'Spooky Supplies' stall. He has several items for sale: pumpkin lanterns cost £3.45 each, bat-shaped biscuits are £1.20, and bags of 'ghostly' sweets are £2.75. Max started the day with a float of £25.00 in his cash box. By midday, he had sold 12 pumpkin lanterns, 24 bat-shaped biscuits, and 15 bags of sweets. He needs to calculate his total takings and work out if he has enough change for his customers.

*Word bank: total · calculate · remainder · product · equivalent · expenditure · profit*

**1. Calculate the total amount of money Max earned from selling exactly 12 pumpkin lanterns. Show your method. (2 marks)**

**2. If a customer buys 3 bags of ghostly sweets and 4 bat-shaped biscuits, how much change should they receive from a £20.00 note? (3 marks)**

**3. Explain why it is more efficient to use the formal written method of multiplication when calculating the cost of 24 bat-shaped biscuits rather than repeated addition. (2 marks)**

**4. Max decides to offer a 'Spooky Bundle' consisting of 2 pumpkin lanterns and 5 bags of sweets for a discounted price of £18.00. How much money does a customer save by purchasing the bundle instead of buying the items individually? (3 marks)**

**5. Justify your answer: If Max sells another 10 pumpkin lanterns, will his total takings exceed £100.00? Support your response with a calculation. (3 marks)**

**Draw: Draw a symmetrical spider web pattern that Max might use to decorate his stall, ensuring that the number of segments in each quadrant is equal.**

*Extension challenge: Imagine the stall becomes even more popular. Create a new pricing strategy for a 'Deluxe Halloween Hamper' containing at least four different items. Write a paragraph justifying your chosen prices, considering both the total cost and the potential profit margin.*