Max’s Market Stall Statistics

Learning objective: To interpret, construct, and analyse data using line graphs and tables, and solve comparison, sum, and difference problems.

Max the monkey has been tracking the sales of his fruit stall over a busy week. Use the provided data table below to construct a line graph on your grid paper. Then, answer the analytical questions to help Max improve his business strategy. Remember to label your axes clearly with the days of the week and the number of items sold (£).

Max's Sales Data (Items sold): Monday: 15, Tuesday: 22, Wednesday: 18, Thursday: 30, Friday: 45, Saturday: 60, Sunday: 55.

Word bank: x-axis · y-axis · interval · data points · trend · frequency · fluctuation

1. Calculate the total number of items sold between Monday and Wednesday. Show your working out. (2 marks)

2. What is the difference in sales between the busiest day and the quietest day? (2 marks)

3. Explain why there might be a significant increase in sales towards the end of the week (Friday to Sunday). (3 marks)

4. If each fruit item costs £2.50, what was the total revenue generated on Thursday? (2 marks)

5. Compare and contrast the trend of sales from Monday to Wednesday with the trend from Thursday to Saturday. What do you notice about the rate of change? (3 marks)

6. Justify your answer: If Max wants to increase his profit next week, should he order more stock for Tuesday or Saturday? Explain your reasoning using evidence from the data. (3 marks)

Draw: Draw a clear line graph using the data provided. Ensure you use a ruler for the axes, label the x-axis 'Days of the Week', and the y-axis 'Number of Items Sold'. Use a different coloured pencil to plot the points and connect them with a neat line.

Extension challenge: Max is considering selling fruit baskets. If a basket contains 3 apples (£0.50 each) and 2 pears (£0.75 each), calculate the cost of one basket. If he sells 20 baskets on Saturday, how much revenue would he make? Create a table to show how much profit he would make if he increased the price of the basket by 20%.