



# Coordinates & Graphs

Gold

These Gold questions require applying coordinate and graph skills to more complex, multi-step situations.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Section A: Coordinate Reasoning

1. A square has corners at (1,1), (1,4), (4,4), and (4,1). What are the coordinates after a translation of 3 right and 2 down?

2. A point at (6, 8) is reflected in the x-axis. What are its new coordinates?

3. Three corners of a rectangle are (2,2), (2,5), and (6,5). What is the fourth corner?

4. A shape is translated 4 right and 3 up, ending at (9, 10). What were its original coordinates?

5. Explain the difference between a translation and a reflection.

## Section B: Graph & Data Reasoning

1. A line graph shows a car's speed increasing for 10 minutes, staying steady for 15 minutes, then decreasing for 5 minutes. Describe what is happening to the car during each stage.

2. Two buses leave the same stop: Bus A every 15 minutes from 08:00, Bus B every 20 minutes from 08:00. At what time do they next leave together?

3. A graph shows rainfall over a week, with the highest point on Wednesday. If Wednesday had 18mm and this was double Monday's rainfall, how much rain fell on Monday?

4. A cyclist travels 30km in 2 hours, then 15km in the next hour. What is their average speed over the whole 3 hours?

5. Explain why a graph with a steep line shows a faster rate of change than a graph with a shallow line.