UNIT 14 Straight Line Graphs Mental Tests

M 14.1 Standard Route *(no calculator)*

Questions 1 to 7 refer to Diagram A on the Data Sheet.

1. Which point has coordinates (2, 3) ? (G)
2. Which point has coordinates (2, – 1) ? (H)
3. Which point has coordinates (– 2, 3) ? (J)
4. Write down the coordinates of the point A. (4, 6)
5. Write down the coordinates of the point B. (5, – 3)
6. Write down the coordinates of the point E. (– 4, 7)
7. Write down the coordinates of the point D. (– 5, – 4)

Questions 8 to 10 refer to Diagram B on the Data Sheet.

8. What is the gradient of the line A ? (1)
9. Is the gradient of the line C positive or negative? (Positive)
10. Is the gradient of the line E positive or negative? (Negative)

M 14.2 Academic Route *(no calculator)*

Questions 1 to 7 refer to Diagram A on the Data Sheet.

1. Which point has coordinates (5, 3) ? (F)
2. Which point has coordinates (– 2, 3) ? (J)
3. Which point has coordinates (5, – 3) ? (B)
4. Write down the coordinates of the point E. (– 4, 7)
5. Write down the coordinates of the point D. (– 5, – 4)
6. Write down the coordinates of the point G. (2, 3)

Questions 7 to 9 refer to Diagram B on the Data Sheet.

7. What is the gradient of the line A ? (1)
8. What is the gradient of the line B ? (2)
9. What is the gradient of the line D ? (– 1)

Question 10 refers to Diagram A on the Data Sheet.

10. A rectangle has corners at B, C and H.
    What are the coordinates of the other corner? (5, – 1)

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M 14.3 Express Route *(no calculator)*

Questions 1 to 2 refer to Diagram A on the Data Sheet.

1. Which point has coordinates (– 2, 3) ? (J)

2. Write down the coordinates of the point D. (– 5, – 4)

Questions 3 to 6 refer to Diagram B on the Data Sheet.

3. What is the gradient of the line B ? (2)

4. What is the gradient of the line C ? $(\frac{1}{3})$

5. What is the gradient of the line D ? (– 1)

6. What is the gradient of the line E ? (– 2)

Questions 7 to 10 refer to Diagram A on the Data Sheet.

7. What is the gradient of a line that passes through points D and I ? (1)

8. Where does a line through points D and I cross the *y*-axis? (0, 1)

9. What is the equation of the line that passes through points G and A ? $(y = \frac{3}{2}x)$

10. What is the gradient of a line that passes through points E and J ? (– 2)

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Data Sheet

DIAGRAM A

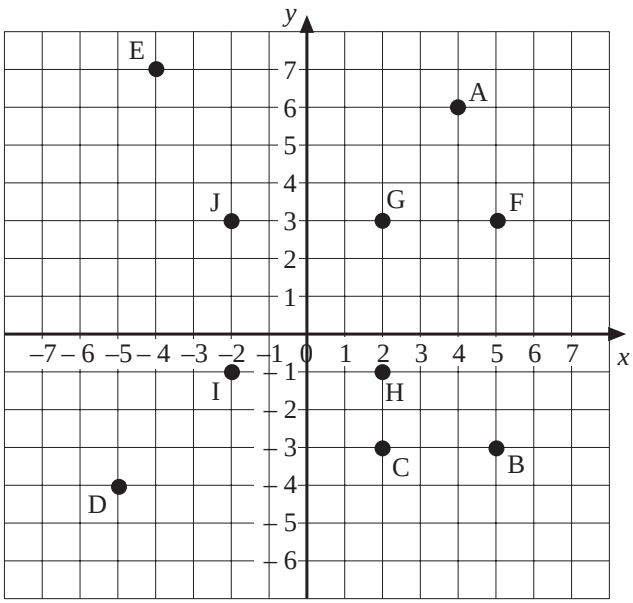

DIAGRAM B