

UNIT 5 Linear Graphs and Equations

Mental Tests

M 5.1 Standard Route *(no calculator)*

You will need the Information Sheet

1. Write down the coordinates of the point B. (3, 3)
 2. Write down the coordinates of the point M. (1, - 8)
 3. Write down the coordinates of the point N. (- 4, - 2)
 4. Write down the coordinates of the point F. (- 2, 6)
 5. Which point has coordinates (0, 8)? (G)
 6. Which point has coordinates (2, 10)? (H)
 7. Which point has coordinates (- 4, 4)? (E)
 8. Which point has coordinates (- 4, - 2)? (N)
 9. Which point has the same x -coordinate as point K ? (L)
 10. Which point has the same y -coordinate as point K ? (J)
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M 5.2 Academic Route *(no calculator)*

You will need the Information Sheet

1. Write down the coordinates of the point P. (8, 0)
 2. Write down the coordinates of the point R. (- 4, 2)
 3. Which point has coordinates (- 2, 6)? (F)
 4. Which point has coordinates (- 4, - 2)? (N)
 5. What is the gradient of a line that joins the points E and F ? (1)
 6. What is the gradient of a line that joins the points R and F ? (2)
 7. What is the gradient of a line that joins the points R and A ? ($-\frac{1}{5}$)
 8. The points A, B, C and D lie on a straight line.
What is the equation of the line? ($y = x$)
 9. The points E and J lie on a straight line.
What is the equation of the line? ($y = -x$)
 10. Which point has the same y -coordinate as point K? (J)
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M 5.3 Express Route *(no calculator)*

You will need the Information Sheet

1. Write down the coordinates of the point L. (6, - 7)
 2. Write down the coordinates of the point F. (- 2, 6)
 3. Which point has coordinates (- 4, 4)? (E)
 4. What is the gradient of a line that joins the points Q and J ? $(\frac{1}{7})$
 5. What is the gradient of a line that joins the points R and F ? (2)
 6. What is the gradient of a line that joins the points M and H ? (18)
 7. What is the gradient of a line that joins the points Q and L ? $(-\frac{3}{10})$
 8. The points E, F, G and H lie on a straight line.
What is the equation of the line? ($y = x + 8$)
 9. The points E and J lie on a straight line.
What is the equation of the line? ($y = -x$)
 10. The points F and S lie on a straight line.
What is the equation of the line? ($y = -2x + 2$)
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Information Sheet

