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| Year  9 | | Mathematics Test  Coordinate Geometry | | Calculator Allowed |
| Short Answer Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Write all working and answers in the spaces provided on this test paper. | | | |
| 1. | Find then gradient of the interval joining *A*(5, 7) and *B*(2, 1).  .....................................................................    .....................................................................    .....................................................................  ...................................................................... | | | |
| 2. | Find then distance between the points *C*(2, 2) and *D*(10, 8).  .....................................................................    .....................................................................    .....................................................................  ...................................................................... | | | |
| 3. | Find the midpoint of the interval joining the points the points *C*(2, 2) and *D*(10, 8).  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 4. | Find the gradient of the interval joining *E*(6, -5) and *F*(-4, 5).  .....................................................................    .....................................................................    .....................................................................  ...................................................................... | | | |
| 5. | Find then distance between the points *P*(-4, -6) and *Q*(1, 6).  .....................................................................    .....................................................................    .....................................................................  ...................................................................... | | | |
| 6. | Find the midpoint of the interval joining the points *P*(-4, -6) and *Q*(1, 6).  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 7. | The points *G*(-3,4), *H*(-3,-2)and *I*(5,-5) are three vertices of a parallelogram. What are the coordinates of the fourth vertex *J* ?  ...................................................................    .....................................................................    ..................................................................... | | | |
| 8. | Calculate the midpoint of the line segment *KL*, where *K* is (3, -8) and *L* is (-7, -2).  ..........................................................................................................................................................  .......................................................................................................................................................... | | | |
| 9. | Calculate the gradient of the line segment *MN*, where *M* is (5, 9) and *N* is (-3, -7).  ..........................................................................................................................................................  .......................................................................................................................................................... | | | |
| 10. | Calculate the distance between the points *S*(-5, 7) and *T*(-10, -1).  ..........................................................................................................................................................  .......................................................................................................................................................... | | | |
| 11. | What is the gradient of the line which has equation ?  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 12. | What is the equation of the line *l* shown?  .....................................................................  .....................................................................  .....................................................................  ..................................................................... | | | |

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| Year  9 | | Mathematics Test  Coordinate Geometry | | Calculator Allowed |
| Multiple Choice Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Mark all your answers on the accompanying multiple choice answer sheet, not on this test paper. You may do any working out on this test paper. Calculators are allowed for this section. | | | |
| 1. | Which of the points, A, B, C or D has coordinates (-3, 4)? | | | |
| 2. | The points *P* (-3, 3) and *Q* (1, -5) lie on a line l.  The equation of the line l, is:  A.  B.  C.  D. | | | |
| 3. | The point (-4, -6) lies in the:  A. first quadrant. B. second quadrant.  C. third quadrant D. fourth quadrant. | | | |
| 4. | Which is the graph of the line ?   1. B.   C. D. | | | |
| 5. | What is the gradient of the line EF?  A.  B.  C.  D. | | | |
| 6. | A line has a gradient of 4 and a *y* intercept of -3. What is it’s equation?  A.  B.  C.  D. | | | |
| 7. | The point *A* has coordinates (2, 7) and the point *B* has coordinates (-4, 6).  The coordinates of the midpoint of *AB* are:  A. (-2, 13) B. (-1,  ) C. (6, 1) D. (3,  ) | | | |
| 8. | The point *U* has coordinates (-2, 8) and the point *V* has coordinates (-6, -4).  The line *UV* has a gradient of:  A.  B.  C.  D. 3. | | | |
| 9. | What is the distance between the points C(-7, 5) and D(8, -3)?  A. 13 units  B. 15 units  C. 17 units  D. 23 units. | | | |
| 10. | Which point does not lie on the line  A. (-2, -1) B. (0, -5) C. (2, -11) D. ( 4, -17) | | | |
| 11. | The equation of a line which has a gradient of 4 and passes through the point (3, 9) is:  A.  B.  C.  D. | | | |
| 12. | The length of the interval joining *K*(-11, 5) and *L*(13, 2) is:  A.  units. B.  units. C.  units. D. 25 units. | | | |

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| Year  9 | | | Mathematics Test  Coordinate Geometry | | Calculator Allowed |
| Longer Question | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Write all working and answers in the spaces provided on this test paper.  Calculators are allowed for this section. | | | | |
| 1. | The points A(2, 5), B(4, 9) and C(4, 4) are joined to form a triangle. | | | | |
|  | (a)  1 mark | Draw the triangle ABC on the number plane. | | | |
| (b)  1 mark | Show that the line AB has a gradient of 2.  ..........................................................................................................................................................  ......................................................................................................................................................... | | | |
| (c)  2 marks | Find the gradient of AC and show that AC is perpendicular to AB.  ..........................................................................................................................................................  ......................................................................................................................................................... | | | |
| (d)  2 marks | Find the length of the intervals AB and AC.  ..........................................................................................................................................................  ......................................................................................................................................................... | | | |
| (e)  2  marks | Find the area of the triangle ABC.  ..........................................................................................................................................................  .......................................................................................................................................................... | | | |

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| Year  9 | Mathematics Test  Coordinate Geometry | |  |
| Multiple Choice  Answer Sheet | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |

Completely fill the response oval representing the most correct answer.

1. A B C D

2. A B C D

3. A B C D

4. A B C D

5. A B C D

6. A B C D

7. A B C D

8. A B C D

9. A B C D

10. A B C D

11. A B C D

12. A B C D

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|  | Mathematics Test  Coordinate Geometry |
| Answer Sheet |

|  |  |
| --- | --- |
| Short Answer | |
| 1 | 2 |
| 2 | 10 |
| 3 | (6, 5) |
| 4 | -1 |
| 5 | 13 |
| 6 | () |
| 7 | (5, 1) |
| 8 | (-2, -5) |
| 9 | 2 |
| 10 |  |
| 11 | -3 |
| 12 |  |

|  |  |
| --- | --- |
| Multiple Choice | |
| 1 | A |
| 2 | D |
| 3 | C |
| 4 | D |
| 5 | C |
| 6 | B |
| 7 | B |
| 8 | D |
| 9 | C |
| 10 | A |
| 11 | C |
| 12 | A |

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| --- | --- | --- |
| Longer Answer | | |
| 1 | A |  |
|  | B |  |
|  | C |  |
|  | D |  |
|  | E | Since AB is perpendicular to AC |