Plotting Coordinates and Shapes

1. Plot the points A (1,1), B (-6,5) and C (1,9).
   a. Join A to B and B to C.
   b. Plot the point D so that ABCD is a rhombus.
   c. On your graph, write the coordinate of D.
   d. Draw the lines of symmetry on the rhombus. What are the coordinates of the point where the lines meet?

2. Plot the points R (-5,-6), S (-8,3) and T (-5,8).
   a. Join R to S and S to T.
   b. Plot the point U so that RSTU is a Kite.
   c. On your graph, write the coordinate of U.
   d. Draw the diagonals on the Kite. What are the coordinates of the point where the diagonals meet?

3. Plot the points P (-4,3), Q (-2,7) and R (10,1).
   a. Join P to Q and Q to R.
   b. Plot the point S so that PQRS is a rectangle.
   c. On your graph, write the coordinate of S.
   d. Draw the lines of symmetry on the rectangle. What are the coordinates of the point where the lines meet?

4. Plot the points Q (-1,2), M (3,4) and N (7,2)
   a. Join up the points to make a triangle.
   b. What type of triangle is QMN?
   c. Calculate the are of the triangle.

5. Plot the points A (-7,-8), B (-2,-2) and C (4,-8)
   a. Join up the points to make a triangle.
   b. What type of triangle is ABC?
   c. Calculate the area of the triangle.

6. Plot the points A (5,2), B (-4,5) and C (-5,2).
   a. Join the points ABC to make a triangle
   b. What is the area of the triangle
   c. Plot the point D so that ABCD is a Kite
   d. On your graph, write the coordinate of D.
   e. Calculate the area of the Kite (use part b. to help)
   f. Plot the point E so that ABCE is a rectangle.
   g. On your graph, write the coordinate of E.
   h. What is the area of the rectangle?

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