CARTESIAN GRAPHS

1) Plot and label the following points on the coordinare grid shown below.
   a. A (2, 5)   d. D (4, 0)
   b. B (3, 10)   e. E (9, 4)
   c. C (0, 8)
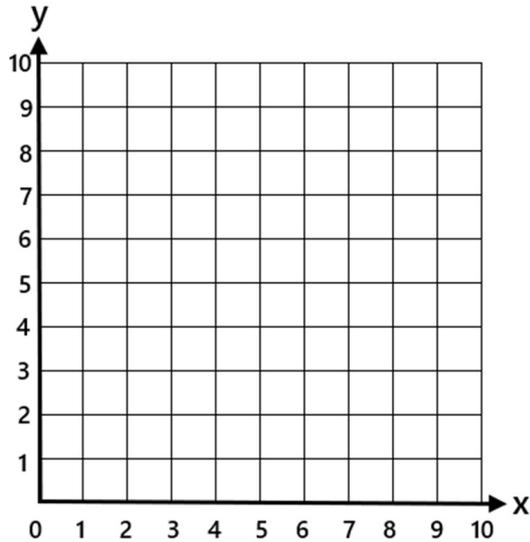
2) Plot and label the following points on the coordinare grid shown below.
   a. A (-2, 3)   e. E (0, -9)
   b. B (-7, 7)   f. F (2, -3)
   c. C (-8, -5)   g. G (6, -1)
   d. D (5, 9)
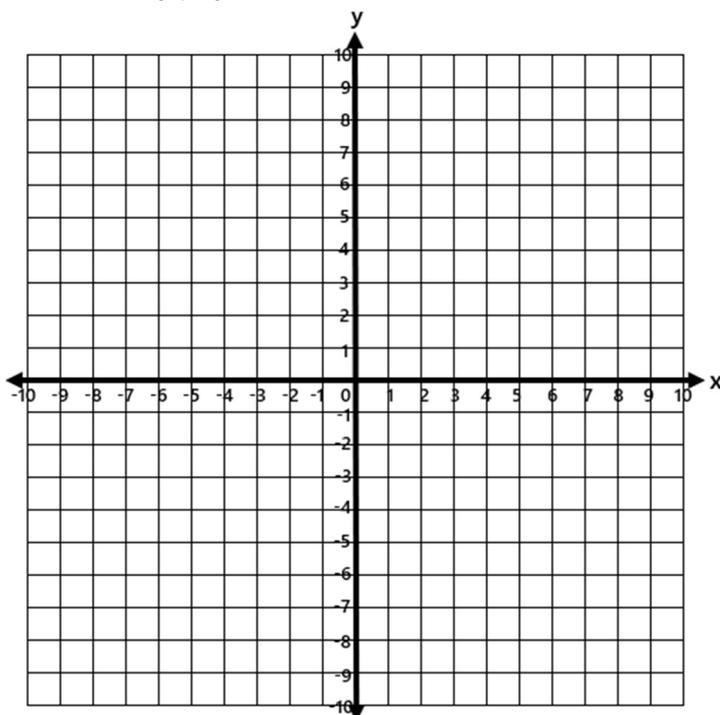
3) Use the coordinate grid shown below to state the coordinates of the points:
   a. A   e. E
   b. B   f. F
   c. C   g. G
   d. D
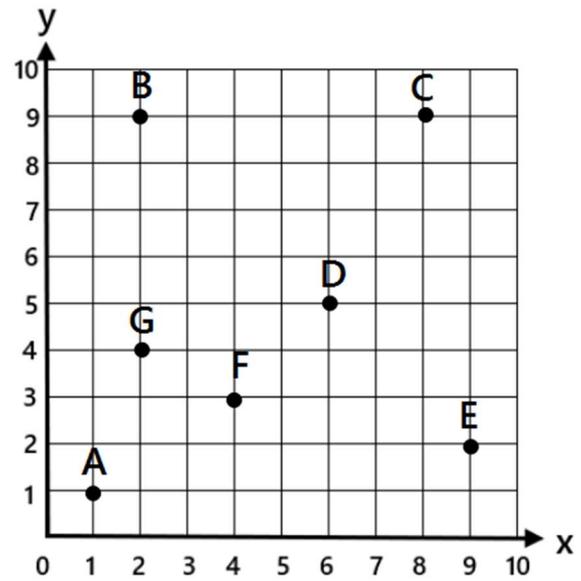
4) Use the coordinate grid shown below to state the coordinates of the points:
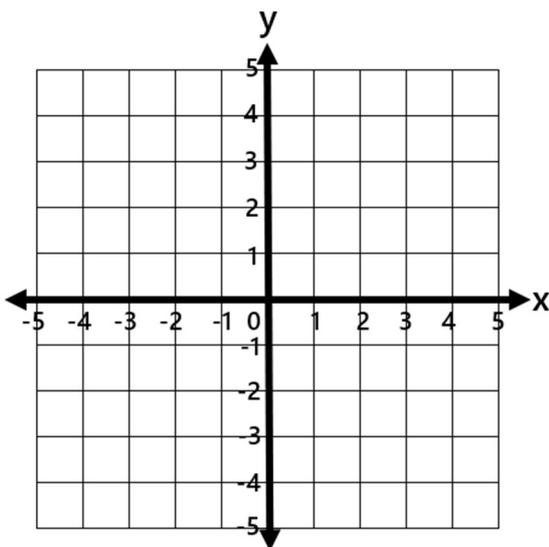   a. A   e. E
   b. B   f. F
   c. C   g. G
   d. D
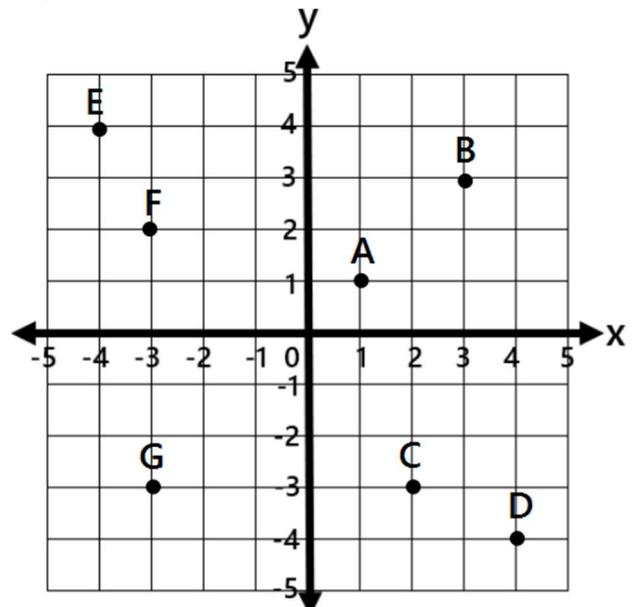
5) Three points are plotted on the coordinate grid shown below. State the coordinates of the point that would form a square.
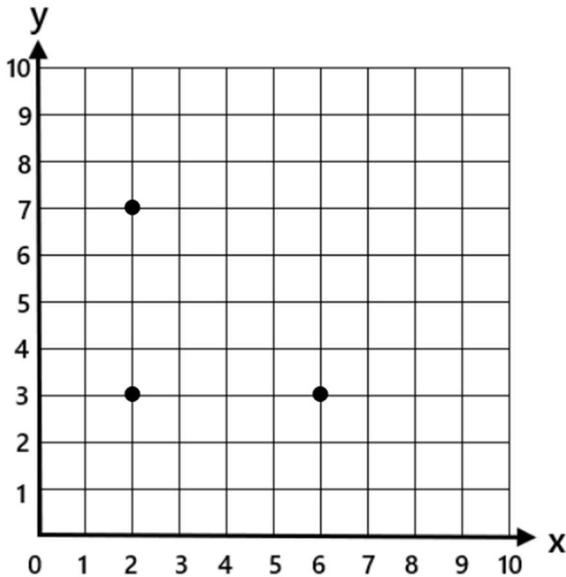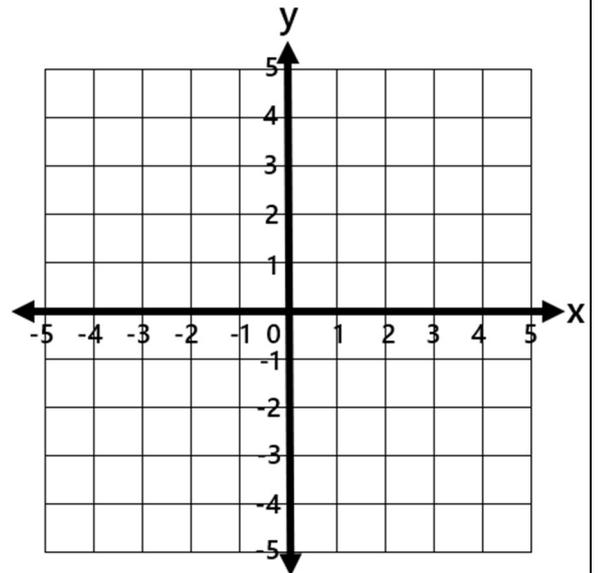

6) Plot the following points on the coordinate grid shown below:
   a. (0, 3)
   b. (-3, -2)
   c. (3, -2)
   d. Connect the points in the order shown above, to form a triangle. What type of triangle is shown?
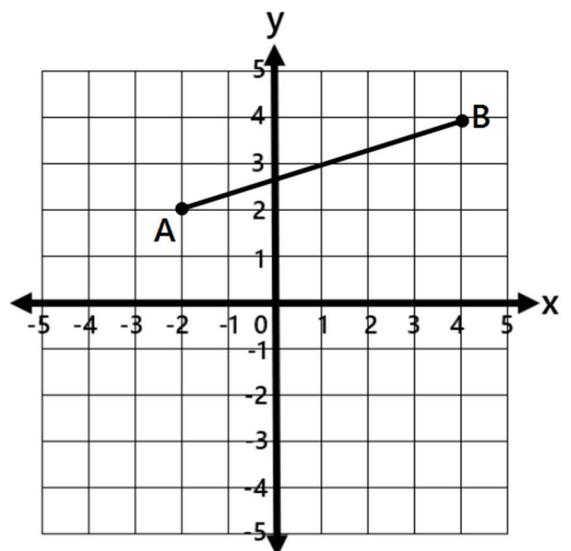

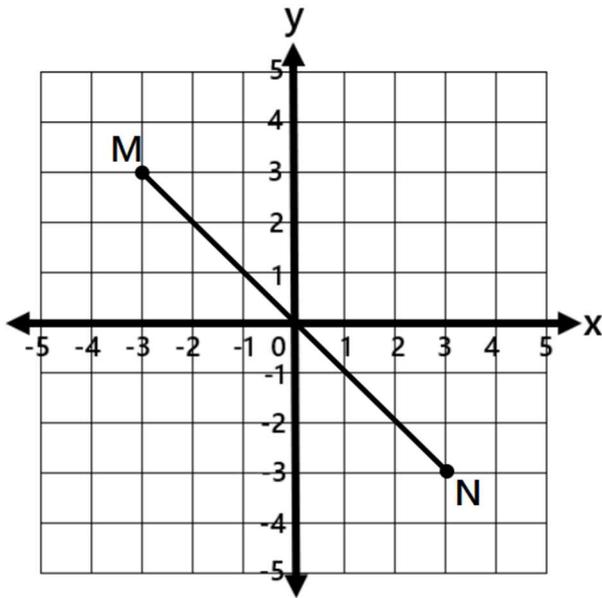7) Plot the following points on the coordinate grid shown below:
   a. (-3, 4)
   b. (-3, 0)
   c. (5, 0)
   d. (5, 4)
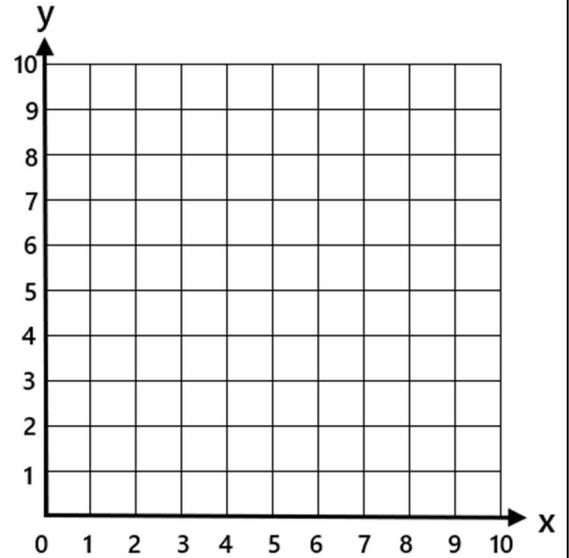   e. Connect the points, in the order shown above to form a quadrilateral. What type of quadrilateral is shown?

8) A line segment AB is shown on the coordinate grid pictured below. Work out the coordinates of the midpoint of AB.

9) A line segment MN is shown on the coordinate grid pictured below. Work out the coordinates of the midpoint of MN.

10) Point F has coordinates (-2, -3).
   a. Plot point F on the coordinate grid shown below.
   b. Write down the coordinates of the point obtained when F is reflected in the x-axis.

11) Plot the points G (1, 2), H (3, 6), and I (5, 10) on the coordinate grid pictured below. Then, describe the relationship between the x and y coordinates.
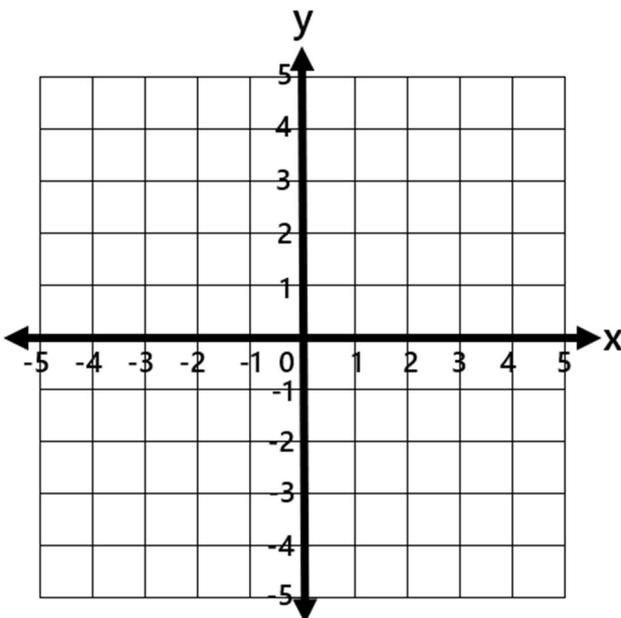
12) Point J is (-4, 1). Point K is 3 units to the right and 5 units up from J. Work out the coordinates of the point K.

13) Point M is (-14, -2). Point N is 8 units to the left and 12 units down from M. Work out the coordinates of the point N.

14) Points T (k, 3) and U (-1, 1) lie on a straight line parallel to the y-axis. Work out the value of k. A coordinate grid is pictured below to help with your working.
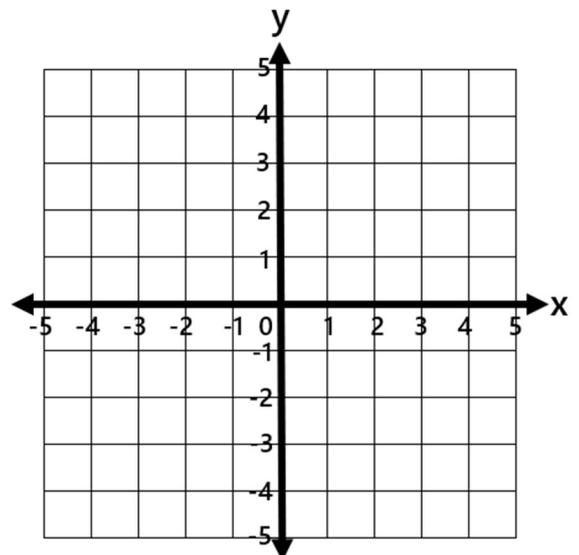
15) The coordinates of the vertices of a trapezium are shown on the graph below. Given that the length of the base of the trapezium is 7, work out the coordinates of the points M and N.
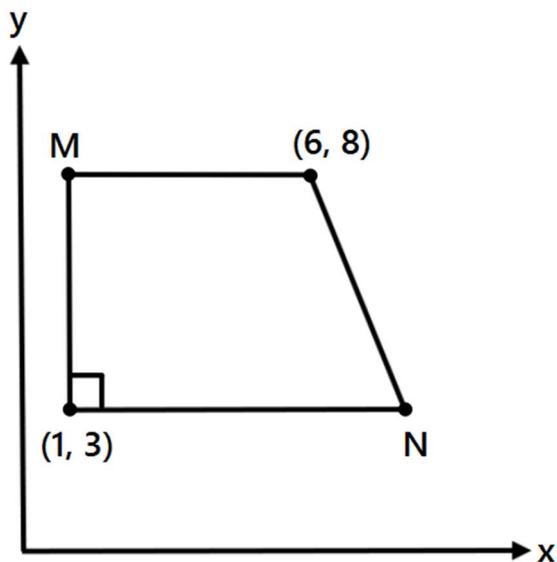
Challenge

16) The vertices of a parallelogram have the points (5, 3), (4, 6) and (9, 7). Work out the two possible points of the fourth vertex.

17) Four squares are shown on the graph pictured below. Two vertices of the square are (1, 3) and (1, 1). Work out the coordinates of the point P.