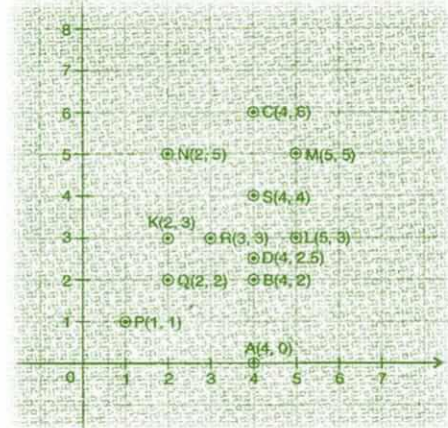# Mathematics

Exercise 15.2

Question 1:
Plot the following points on a graph sheet. Verify if they lie on a line
  (a) A(4, 0), B(4, 2), C(4, 6), D(4, 2.5)
  (b) P(1, 1), Q(2, 2), R(3, 3), S(4, 4)
  (c) K(2, 3), L(5, 3), M(5, 5), N(2, 5)

Answer 1:
  (a) All points A, B, C and D lie on a vertical line.
  (b) P, Q, R and S points also make a line. It verifies that these points lie on a line.
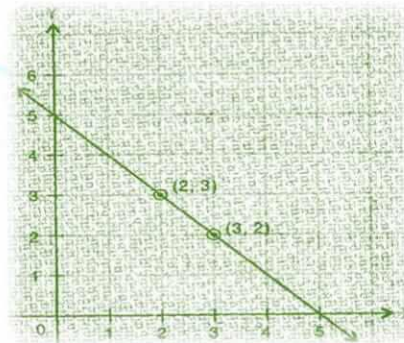 (c) These points do not lie in a straight line.

Question 2:
Draw the line passing through (2, 3) and (3, 2). Find the coordinates of the points at which this line meets the x-axis and y-axis.

Answer 2:
The coordinates of the points at which this line meets the $x-$axis at (5, 0) and $y-$axis at (0, 5).

Question 3:
Write the coordinates of the vertices of each of these adjoining figures.
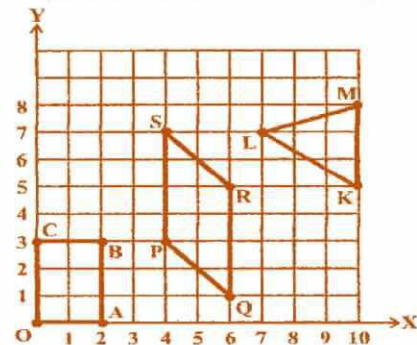
Answer 3:
  Vertices of figure OABC
  O (0, 0), A (2, 0), B (2, 3) and C (0, 3)

  Vertices of figure PQRS
  P (4, 3), Q (6, 1), R (6, 5) and S (4, 7)

  Vertices of figure LMK
  L (7, 7), M (10, 8) and K (10, 5)

Question 4:
State whether True or False. Correct that are false.
  (i) A point whose x coordinate is zero and y-coordinate is non-zero will lie on the y-axis.
  (ii) A point whose y coordinate is zero and x-coordinate is 5 will lie on y-axis.
  (iii) The coordinates of the origin are (0, 0).

Answer 4:
  (i) True   (ii) False, it will lie on $x-$axis.   (iii) True