

**INDIAN SCHOOL SOHAR**  
**FORMATIVE ASSESSMENT- 3**  
**MATHEMATICS**

Date: 10-11-2013

Class: IX

Time: 45mnts

Marks: 25

General Instructions:

- All questions are compulsory.
- Section A comprises 3 questions of 1 mark each.
- Section B comprises 4 questions of 2 marks each.
- Section C comprises 2 questions of 3 marks each.
- Section D comprises 2 questions of 4 marks each.

**SECTION A**

1. If the points (0, 1) and (1, 0) lie on the graph of the equation  $y = m x + c$ , then find the values of  $m$  and  $c$ .
2. The graph of  $y = m$  is a straight line parallel to which axis.
3. In  $\triangle ABC$ , D, E and F are the mid-points of the sides AB, BC and CA respectively. If  $AC=8.2$  cm, then find the value of DE.

**SECTION B**

4. If the point  $(2k-3, k+2)$  lies on the graph of the equation  $2x+3y+15 = 0$ , find the value of  $k$ .
5. Give the equation of one line passing through  $(2, 14)$ . How many more such lines are there and why ?
6. Determine the solution of the linear equation  $2x + 5y = 19$ , whose ordinate is  $1\frac{1}{2}$  times of its abscissa.
7. In a rhombus ABCD, diagonals bisect each other at O. If area of the rhombus is  $25 \text{ cm}^2$ ,  $AO = 5$  cm, find the length of BD.

**SECTION C**

8. Prove that, a diagonal of a parallelogram divides it into two congruent triangles.
9. Two parallel lines  $l$  and  $m$  are intersected by the transversal  $p$ . Show that the quadrilateral formed by the bisectors of interior angles is a rectangle.

**SECTION D**

10. Draw the graph of the linear equation  $4x + y = 6$ . At what points the graph of the equation cuts the X-axis and Y-axis ?
11. ABCD is a rhombus and P, Q, R and S are the mid-points of the sides AB, BC, CD and DA respectively. Show that the quadrilateral PQRS is a rectangle.

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