Assuming

Amity International School, Saket

Unit Test – Mathematics

Class – IX | Date – 24.7.2017

Term – First | Time – 1 hour

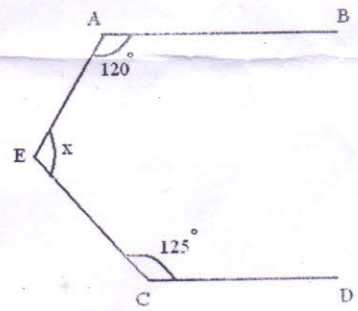
Cycle – 2 | MM – 30

Section A: 3x1 = 3marks (Q.1 to Q.3 carry 1 mark each)

1. Does the graph of equation $2x + 3y = 9$ pass through the point (-1, 2) or not.
2. In which quadrant does the point whose abscissa is -6 and ordinate is 3 lie?
3. For what value or values of 'c' do the graph of a linear equation $ax + by + c + 0$ pass through the origin?

Section – B: 3 x 2 = 6 marks (Q.4 to Q.6 carry 2 marks each)

4. If $(2p - 1, p)$ is a solution of the equation $10x - 9y = 12$, then find the value of p.
5. The measure of an angle is four times the measure of its supplementary angle. Find the two angles.
6. In the adjoining figure, AB is parallel to CD. Find the value of x.



Section – C: 3 x 3 = 9 marks (Q.7 to Q.9 carry 3 marks each)

7. Find solutions of the form (a, 0) and (0, b) for the equation $3x - 2y + 6 = 0$.
8. Write the coordinates of a rectangle whose length and breadth are 5 and 3 units respectively such that one vertex is at the origin, longer side lies on the X-axis and one of the vertices lies in the third quadrant.

9. The side BC of ΔABC is produced to point D. The bisector of $\angle ABC$ and $\angle ACD$ meet at a point E. If $\angle BAC = 68°$, then find the measure of $\angle BEC$.

Section – D: 3 x 4 = 12 marks (Q.10 to Q.12 carry 4 marks each)

10. BO and CO are angle bisectors of the external angles of ΔABC (obtained by producing sides AB and AC). Prove that $\angle BOC = 90° - \frac{1}{2}\angle A$

11. If two parallel lines are intersected by a transversal, prove that the bisectors of two pairs of interior angles enclose a rectangle.

12. Draw the graph of the equation $3x + 4y + 12 = 0$ and shade the region bounded by this line and the two axes.