MATHEMATICS –IX (29.08.2014)

Topic: Linear Equation In Two Variables

Q1: Find the value of K if x=2 and y=1 is a solution of the equation (k-2)x + 4y = 10 and have the graph of the equation. Write the co-ordinate of the point where the graph cuts the y-axis.

Q2: Express y in terms of x in the equation 2x-3y = 12. Find the points where the line represented by this equation cuts x-axis and y- axis.

Q3: Draw the graph of two lines whose equations are 3x-2y -6 =0 and x+2y-6=0 on the same graph paper. Find the area of triangle formed by the two lines and x-axis.

Q4: Find the solutions of the form x=a, y=0 and x=0, y=b for the following equations:

2x+5y = 10 and 2x+3y = 6. Is there any common solution?

Q5: If the points A(3,5) and B(1,4) lie on the graph of the line ax+by = 7, find the values of a and b.

Q6: Draw the graphs of 2x+ y=6 and 2x-y +2 =0. Shade the region bounded by these lines and x-axis. Find the area of the shaded region.

Q7: Draw the graphs of x- y=1 and 2x+y =8. Shade the region bounded by these lines and y-axis. Shade the area bounded by these two lines and y-axis. Also, determine this area.

Q8: Ravish tells his daughter Aarushi, “Seven years ago, I was seven times as old as you will be”. If present ages of Aarushi and Ravish are x and y respectively, represent this situation algebraically as well as graphically.

Q9: If the points A(3,5) and B(1,4) lie on the graph of the line ax+ by = 7, find the values of a and b.

Q10: Draw the graphs of each of the following linear equations in Cartesian plane

(i) x-2=0 (ii) 2x + 4 = 3x + 1