CBSE TEST PAPER-01

Class X - Mathematics (Pair of Linear Equation)

1. A pair of Linear equation in two variables which has a common point i.e which has only one solution is called a [1]

   (a) Consistent pair (b) Inconsistent pair

   (c) Dependent pair (d) None of there.

2. If a pair of linear equation $a_1x+b_1y+c_1=0$ and $a_2x+b_2y+c_2=0$ represents coincident lines, then [1]

   (a) $\frac{a_1}{a_2}\neq\frac{b_1}{b_2}$ (b) $\frac{a_1}{a_2}=\frac{b_1}{b_2}\neq\frac{c_1}{c_2}$

   (c) $\frac{a_1}{a_2}=\frac{b_1}{b_2}=\frac{c_1}{c_2}$ (d) None of these

3. The value of 'k' for which the system of equation 2x+3y=5 and 4x+ky=10 has infinite number of solutions is [1]

   (a) k=1 (b) k=3

   (c) k= 6 (d) k=0

4. If the system of equation 2x+3y=7 and 29x+(a+b) y=28 has infinitely many solution then [1]

   (a) a=2b (b) b=2a

   (c) a+2b=0 (d) 2a+b =0

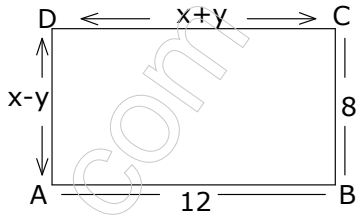
5. The cost of two kg of apples and 1kg of grapes on a day was found to be Rs 160. After a month the cost of 4 kg apples and 2kg grapes is Rs 300. Represent the [2]

situation algebraically and graphically.

6. Find the value of 'k' for which the system of equation kx+3y=k-3 and 12x+ky=k will have no solution. [2]

7. Can (x-2) be the remainder on division of a polynomial p(x) by (2x+3)? Justify your answer. [2]

8. ABCD is a rectangle find the values of x and y. [2]



9. Solve the following system of equation graphically. x+2y=1, x-2y=-7 also read the paints from the graph where the lines meet the x-axis and y-axis. [3]

10. Salve 23x-29y=98 and 29x-23y=110 [3]

11. A man has only 20 paisa coins and 25 paisa coins in his purse. If he has 50 coins in all totaling Rs 11.25. How many coins of each kind does he have? [3]

12. A says to B "my present age is Five times your that age when I was an old as you are now. It the sum of their present ages is 48 years, find their present ages. [3]

13. A boat goes 30 km upstream and 44 km downstream in 10 hours. In 13 hours it can go 40km upstream and 55 km down stream. Determined the speed of the stream and that of the boat in still water. [5]