4. PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

1. The point of intersection of the lines represented by 3x–2y = 6, the Y-axis is ____
2. If x = 2, y = 3 is a solution of a pair of lines 2x–3y+a = 0 and 2x+3y–b+2 = 0, then the relationship between a and b is ____
3. If the units and ten's digit of a two digit number are y and x respectively, then the number will be in the form of ____
4. The age of a son is one third the age of his mother. If the present age of mother is x years, then the age of the son after 12 years is ____
5. If the line y = px–2 passes through the point (3, 2), then the value of p is ____
6. The value of $\frac{2}{\sqrt{x}}+\frac{3}{\sqrt{y}}$ when x = 4 and y = 9 is ____
7. If ad≠bc, then the pair of linear equations ax+by = p then and cx+dy = p has ____ solutions?
8. The pair of linear equations 3x+5y = 3, 6x+ky= 8 do not have solutions if k= ____
9. The point of the intersection of the lines x-2 = 0 and y+6 = 0 is ____
10. ____ is the area of the triangle formed by the coordinate axes and the line x+y = 6.
11. The sum of the two digits of a two digit number is 12. The number obtained by interchanging the two digits exceeds the given number by 18. the number is ____
12. The point (–2, –2) lies in the ____ Quadrant.
13. If the difference between two numbers is 26. One number is three times the oth-er number, then the two numbers are ____
14. If the system of equations 4x+y= 3 and 8x+2y= 5k has infinite solutions, then the value of k is ____
15. The system of linear equations x+y= 14 and x–y= 4 are ____
16. If the system of linear equations (k–3) x+3y = k, kx+ky = 12 has infinite number of solutions then the value of k is ____
17. If the system of linear equations 3x–4y+7 = 0 and kx+3y–5 = 0 has no solutions then value of k is ____
18. ____ is the condition if the pair of linear equations, $a_1x+b_1y+c_1= 0$,

$a_2x+b_2y+c_2= 0$, has a unique solution?

19. The sum of the numerator and the denominator of a fraction is 12. If the denominator is increased by 3, the fraction becomes 1/2. then the fraction is ____

20. If $\frac{x+y}{xy}=2 \,\&\, \frac{x-y}{xy}=6$, then value of y is ____

21. Two angles are complementary. The larger angle is 3 degrees less than twice the measure of the smaller angle. The measure of each angle is ____ and ____

22. The value of y when x = $-1/2$ that satisfies the equation $\frac{2}{x}+\frac{3}{y}=5$ is ____

23. The length and breadth of a rectangle are x, y respectively. The area of the rectangle gets reduced by 9 square units, if its length is reduced by 5 units and breadth is incre-ased by 3 units. Then the equation we get is ____

24. The larger of two supplementary angles exceeds the smaller by 20 degrees. Then the angles are ____ and ____

25. ____ is the value of 'a' so that the point (2, a) lies on the line represented by 4x–y= 3?

ANSWERS

1) (0, –3); 2) 3a = b; 3) 10x+y; 4) $\frac{x}{3}+12$; 5) 4/3; 6) 2 or –2;
7) unique solution;
8) k = 10; 9) (2, –6); 10) 18; 11) 57;
12) 3rd quadrant; 13) 39, 13; 14) 6/5;
15) consistent; 16) 6; 17) –9/4;
18) $\frac{a_1}{a_2}\neq\frac{b_1}{b_2}$; 19) 5/7; 20) 1/4; 21) 31 degrees and 59 degrees; 22) 1/3;
23) (x–5) (y+3)=(xy–9); 24) 100 degrees, 80 degrees; 25) a = 5.