# Pair of Linear Equations in two Variables : Worksheet -7

1. If (a + b, a – b) is the solution of the equations $3x + 2y = 20$ and $4x - 5y = 42$, then find the value of b. [ ]

   a] 8 b] -2 c] -4 d] 5

2. In a fraction, if numerator is increased by 2 and denominator is increased by 3, it becomes $\frac{3}{4}$ and if numerator is decreased by 3 and denominator is decreased by 6, it becomes $\frac{4}{3}$. Find the sum of the numerator and denominator. [ ]

   a] 16 b] 18 c] 20 d] 14

3. The fair of 3 full tickets and 2 half tickets is Rs.204 and the fair of 2 full tickets and 3 half tickets is Rs.186. Find the fair of a full ticket and a half ticket. [ ]

   a] Rs.94 b] Rs.78 c] Rs.86 d] Rs.62

4. If $\frac{3}{2}x + 2y = \frac{x}{4} - \frac{y}{2} = 1$, then $x - y =$ [ ]

   a] 1 b] 3 c] 2 d] 0

5. If we add 1 to the numerator and subtract 1 from the denominator a fraction becomes 1. It also becomes $\frac{1}{2}$ if we add 1 to the denominator. Then the sum of the numerator and denominator of the fraction is [ ]

   a] 7 b] 8 c] 2 d] 11

6. 10 students of X$^{std}$ took part in Maths quiz. If the number of girls is four more than the no of boys. Then the no of boys and girls are respectively [ ]

   a) 4, 6 b) 6, 4 c) 3, 7 d) 7, 3

7. The system of equations given by 2x – 3y = 6 and x + y = 1 will have [ ]

   a) a unique solution b) no solution

   c) Infinitely many solution d) none

8. For what value of 'k' the system of equations has a unique solution

$x - 2y = 3$ and $3x + ky = 1$ [ ]

a) $k \neq -6$ b) $k \neq -2$ c) $k \neq -3$ d) $k \neq 6$

9. The value of 'k' for which the system of equations given by

$x + (k + 1)y = 4$; $(k + 1)x + 9y = 5k + 2$

has infinitely many solutions [ ]

a) 1 b) 2 c) 3 d) 4

10. The Value of 'k' for which the system of equations given by

$3x + y = 1$; $(2k - 1)x + y = 2k + 1$ will have no solutions [ ]

a) 1 b) 2 c) 3 d) 4