MCQ WORKSHEET-I

PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

1. The pair of equations y = 0 and y = –7 has
(a) one solution (b) two solution (c) infinitely many solutions (d) no solution

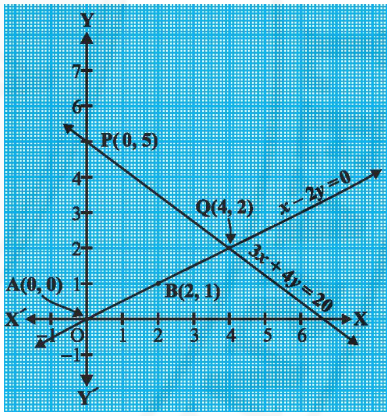
2. The pair of equations x = a and y = b graphically represents the lines which are
(a) parallel (b) intersecting at (a, b)
(c) coincident (d) intersecting at (b, a)

3. The value of c for which the pair of equations cx – y = 2 and 6x – 2y = 3 will have infinitely many solutions is
(a) 3 (b) – 3 (c) – 12 (d) no value

4. When lines l_1 and l_2 are coincident, then the graphical solution system of linear equation have
(a) infinite number of solutions (b) unique solution
(c) no solution (d) one solution

5. When lines l_1 and l_2 are parallel, then the graphical solution system of linear equation have
(a) infinite number of solutions (b) unique solution
(c) no solution (d) one solution

6. The coordinates of the vertices of triangle formed between the lines and y-axis from the graph is
(a) (0, 5), (0, 0) and (6.5,0) (b) (4,2), (0, 0) and (6.5,0)
(c) (4,2), (0, 0) and (0,5) (d) none of these



7. Five years ago Nuri was thrice old as Sonu. Ten years later, Nuri will be twice as old as Sonu. The present age, in years, of Nuri and Sonu are respectively
(a) 50 and 20 (b) 60 and 30 (c) 70 and 40 (d) 40 and 10

8. The pair of equations 5x – 15y = 8 and 3x – 9y = 24/5 has
(a) infinite number of solutions (b) unique solution
(c) no solution (d) one solution

9. The pair of equations x + 2y + 5 = 0 and –3x – 6y + 1 = 0 have
(a) infinite number of solutions (b) unique solution
(c) no solution (d) one solution

10. The sum of the digits of a two digit number is 9. If 27 is added to it, the digits of the numbers get reversed. The number is
(a) 36 (b) 72 (c) 63 (d) 25

MCQ WORKSHEET-II
PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

MATHEMATICS

10TH CBSE

1. If a pair of equation is consistent, then the lines will be
   (a) parallel (b) always coincident
   (c) always intersecting (d) intersecting or coincident

2. The solution of the equations x + y = 14 and x – y =4 is
   (a) x = 9 and y = 5 (b) x = 5 and y = 9 (c) x = 7 and y = 7 (d) x = 10 and y = 4

3. The sum of the numerator and denominator of a fraction is 12. If the denominator is increased by b3, the fraction becomes ½ , then the fraction
   (a) $\frac{4}{7}$ (b) $\frac{5}{7}$ (c) $\frac{6}{7}$ (d) $\frac{3}{7}$

4. The value of k for which the system of equations x – 2y = 3 and 3x + ky = 1 has a unique solution is
   (a) k = – 6 (b) k ≠ – 6 (c) k = 0 (d) no value

5. If a pair of equation is inconsistent, then the lines will be
   (a) parallel (b) always coincident
   (c) always intersecting (d) intersecting or coincident

6. The value of k for which the system of equations 2x + 3y = 5 and 4x + ky = 10 has infinite many solution is
   (a) k = – 3 (b) k ≠ – 3 (c) k = 0 (d) none of these

7. The value of k for which the system of equations kx – y = 2 and 6x – 2y = 3 has a unique solution is
   (a) k = – 3 (b) k ≠ – 3 (c) k = 0 (d) k ≠ 0

8. Sum of two numbers is 35 and their difference is 13, then the numbers are
   (a) 24 and 12 (b) 24 and 11 (c) 12 and 11 (d) none of these

9. The solution of the equations 0.4x + 0.3y = 1.7 and 0.7x – 0.2y = 0.8 is
   (a) x = 1 and y = 2 (b) x = 2 and y = 3 (c) x = 3 and y = 4 (d) x = 5 and y = 4

10. The solution of the equations x + 2y = 1.5 and 2x + y = 1.5 is
    (a) x = 1 and y = 1 (b) x = 1.5 and y = 1.5(c) x = 0.5 and y = 0.5(d) none of these

11. The value of k for which the system of equations x + 2y = 3 and 5x + ky + 7 = 0 has no solution is
    (a) 10 (b) 6 (c) 3 (d) 1

12. The value of k for which the system of equations 3x + 5y = 0 and kx + 10y = 0 has a non-zero solution is
    (a) 0 (b) 2 (c) 6 (d) 8

MCQ WORKSHEET-III
PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

MATHEMATICS

10TH CBSE

1. Sum of two numbers is 50 and their difference is 10, then the numbers are
   (a) 30 and 20 (b) 24 and 14 (c) 12 and 2 (d) none of these

2. The sum of the digits of a two-digit number is 12. The number obtained by interchanging its digit exceeds the given number by 18, then the number is
   (a) 72 (b) 75 (c) 57 (d) none of these

3. The sum of a two-digit number and the number obtained by interchanging its digit is 99. If the digits differ by 3, then the number is
   (a) 36 (b) 33 (c) 66 (d) none of these

4. Seven times a two-digit number is equal to four times the number obtained by reversing the order of its digit. If the difference between the digits is 3, then the number is
   (a) 36 (b) 33 (c) 66 (d) none of these

5. A two-digit number is 4 more than 6 times the sum of its digits. If 18 is subtracted from the number, the digits are reversed, then the number is
   (a) 36 (b) 46 (c) 64 (d) none of these

6. The sum of two numbers is 1000 and the difference between their squares is 25600, then the numbers are
   (a) 616 and 384 (b) 628 and 372 (c) 564 and 436 (d) none of these

7. Five years ago, A was thrice as old as B and ten years later A shall be twice as old as B, then the present age of A is
   (a) 20 (b) 50 (c) 30 (d) none of these

8. The sum of thrice the first and the second is 142 and four times the first exceeds the second by 138, then the numbers are
   (a) 40 and 20 (b) 40 and 22 (c) 12 and 22 (d) none of these

9. The sum of twice the first and thrice the second is 92 and four times the first exceeds seven times the second by 2, then the numbers are
   (a) 25 and 20 (b) 25 and 14 (c) 14 and 22 (d) none of these

10. The difference between two numbers is 14 and the difference between their squares is 448, then the numbers are
    (a) 25 and 9 (b) 22 and 9 (c) 23 and 9 (d) none of these

11. The solution of the system of linear equations $\frac{x}{a}+\frac{y}{b}=a+b; \frac{x}{a^2}+\frac{y}{b^2}=2$ are
    (a) x = a and y = b (b) x = a^2 and y = b^2 (c) x = 1 and y = 1 (d) none of these

12. The solution of the system of linear equations $2(ax-by)+(a+4b)=0; 2(bx+ay)+(b-4a)=0$ are
    (a) x = a and y = b (b) x = –1 and y = –1 (c) x = 1 and y = 1 (d) none of these

MCQ WORKSHEET-IV
PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

MATHEMATICS

10TH CBSE

1. The pair of equations $3x + 4y = 18$ and $4x + \frac{16}{3}y = 24$ has

(a) infinite number of solutions (b) unique solution
(c) no solution (d) cannot say anything

2. If the pair of equations $2x + 3y = 7$ and $kx + \frac{9}{2}y = 12$ have no solution, then the value of k is:

(a) $\frac{2}{3}$ (b) -3 (c) 3 (d) $\frac{3}{2}$

3. The equations $x - y = 0.9$ and $\frac{11}{x+y} = 2$ have the solution:

(a) x = 5 and y = a (b) x = 3, 2 and y = 2, 3 (c) x = 3 and y = 2 (d) none of these

4. If $bx + ay = a^2 + b^2$ and $ax - by = 0$, then the value of $x - y$ equals:

(a) $a - b$ (b) $b - a$ (c) $a^2 - b^2$ (d) $b^2 + a^2$.

5. If $2x + 3y = 0$ and $4x - 3y = 0$, then $x + y$ equals:

(a) 0 (b) -1 (c) 1 (d) 2

6. If $\sqrt{a}x - \sqrt{b}y = b - a$ and $\sqrt{b}x - \sqrt{a}y = 0$, then the value of x, y is:

(a) $a + b$ (b) $a - b$ (c) $\sqrt{ab}$ (d) $-\sqrt{ab}$

7. If $\frac{2}{x} + \frac{3}{y} = 13$ and $\frac{5}{x} - \frac{4}{y} = -2$, then $x + y$ equals:

(a) $\frac{1}{6}$ (b) $-\frac{1}{6}$ (c) $\frac{5}{6}$ (d) $-\frac{5}{6}$

8. If $31x + 43y = 117$ and $43 + 31y = 105$, then value of $x - y$ is:

(a) $\frac{1}{3}$ (b) -3 (c) 3 (d) $-\frac{1}{3}$

9. If $19x - 17y = 55$ and $17x - 19y = 53$, then the value of $x - y$ is:

(a) $\frac{1}{3}$ (b) -3 (c) 3 (d) 5

10. If $\frac{x}{2} + y = 0.8$ and $\frac{7}{\left(x + \frac{y}{2}\right)} = 10$, then the value of $x + y$ is:

(a) 1 (b) -0.8 (c) 0.6 (d) 0.5

11. If (6, k) is a solution of the equation $3x + y - 22 = 0$, then the value of k is:

(a) 4 (b) -4 (c) 3 (d) -3

12. If $3x - 5y = 1$, $\frac{2x}{x-y} = 4$, then the value of $x + y$ is

(a) $\frac{1}{3}$ (b) -3 (c) 3 (d) $-\frac{1}{3}$

13. If $3x + 2y = 13$ and $3x - 2y = 5$, then the value of $x + y$ is:

(a) 5 (b) 3 (c) 7 (d) none of these

14. If the pair of equations $2x + 3y = 5$ and $5x + \frac{15}{2}y = k$ represent two coincident lines, then the value of k is:

(a) -5 (b) $\frac{-25}{2}$ (c) $\frac{25}{2}$ (d) $\frac{-5}{2}$

15. Rs. 4900 were divided among 150 children. If each girl gets Rs. 50 and a boy gets Rs. 25, then the number of boys is:

(a) 100 (b) 102 (c) 104 (d) 105