PRACTICE SHEET 1

1. Customers are asked to stand in the lines. If one customer is extra in a line, then there would be two less lines. If one customer is less in line, there would be three more lines. Find the number of students in the class.

(a) 40
(b) 50
(c) 60
(d) 70

2. 8 girls and 12 boys can finish work in 10 days while 6 girls and 8 boys can finish it in 14 days. Find the time taken by the one girl alone that by one boy alone to finish the work.

(a) 120, 130
(b) 140,280
(c) 240,280
(d) 100,120

3. The sum of two digits and the number formed by interchanging its digit is 110. If ten is subtracted from the first number, the new number is 4 more than 5 times of the sum of the digits in the first number. Find the first number.

(a) 46
(b) 48
(c) 64
(d) 84

4. A fraction becomes . when subtracted from the numerator and it becomes . when 8 is added to its denominator. Find the fraction.

(a) 4/12
(b) 3/13
(c) 5/12
(d) 11/7

5. Five years ago, A was thrice as old as B and ten years later, A shall be twice as old as B. What is the present age of A.

(a) 20
(b) 50
(c) 60
(d) 40

6. What will be the solution of these equations ax+by=a-b, bx-ay=a+b

(a) x=1, y=2
(b) x=2,y=-1
(c) x=-2, y=-2
(d) x=1, y=-1

7. If x=a, y=b is the solution of the pair of equation x-y=2 and x+y=4 then what will be value of a and b

(a) 2,1
(b) 3,1
(c) 4,6
(d) 1,2

8. Rozly can row downstream 20km in 2 hours, and the upstream 4km in 2 hours. What will be the speed of rowing in still water?

(a) 6km/hr
(b) 4km/hr
(c) 3km/hr
(d) 7km/hr

9. Graphically, the pair of equations 7x – y = 5; 21x – 3y = 10 represents two lines which are

(a) intersecting at one point
(b) parallel
(c) intersecting at two points
(d) coincident

10. The pair of equations 3x – 5y = 7 and – 6x + 10y = 7 have

(a) a unique solution
(b) infinitely many solutions
(c) no solution
(d) two solutions

11. If a pair of linear equations is consistent, then the lines will be

(a) always coincident
(b) parallel
(c) always intersecting
(d) intersecting or coincident

12. The pair of equations x = 0 and x = 5 has

(a) no solution
(b) unique/one solution
(c) two solutions
(d) infinitely many solutions

13. The pair of equation x = – 4 and y = – 5 graphically represents lines which are

(a) intersecting at (- 5, – 4)
(b) intersecting at (- 4, – 5)
(c) intersecting at (5, 4)
(d) intersecting at (4, 5)

14. For what value of k, do the equations 2x – 3y + 10 = 0 and 3x + ky + 15 = 0 represent coincident lines

(a) $\left(\frac{-9}{2}\right)$ (b) – 11

(c) $\frac{9}{2}$ (d) – 7

15. If the lines given by 2x + ky = 1 and 3x – 5y = 7 are parallel, then the value of k is

(a) $\frac{-10}{3}$ (b) $\frac{10}{3}$

(c) – 13 (d) – 7

16. One equation of a pair of dependent linear equations is 2x + 5y = 3. The second equation will be

(a) 2x + 5y = 6
(b) 3x + 5y = 3
(c) -10x – 25y + 15 = 0
(d) 10x + 25y = 15

17. If x = a, y = b is the solution of the equations x + y = 5 and 2x – 3y = 4, then the values of a and b are respectively

(a) 6, -1
(b) 2, 3
(c) 1, 4
(d) 19/5, 6/5

18. The graph of x = -2 is a line parallel to the

(a) x-axis
(b) y-axis
(c) both x- and y-axis
(d) none of these

19. The graph of y = 4x is a line

(a) parallel to x-axis
(b) parallel to y-axis
(c) perpendicular to y-axis
(d) passing through the origin

20. The graph of y = 5 is a line parallel to the

(a) x-axis
(b) y-axis
(c) both axis
(d) none of these

21. Two equations in two variables taken together are called

(a) linear equations
(b) quadratic equations
(c) simultaneous equations
(d) none of these

22. If am bl then the system of equations ax + by = c, lx + my = n, has

(a) a unique solution
(b) no solution
(c) infinitely many solutions
(d) none of these

23. If in the equation x + 2y = 10, the value of y is 6, then the value of x will be

(a) -2
(b) 2
(c) 4
(d) 5

24. The graph of the equation 2x + 3y = 5 is a

(a) vertical line
(b) straight line
(c) horizontal line
(d) none of these