1. The pair of equations $y = 0$ and $y = -7$ has

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

2. The pair of equations $x = a$ and $y = b$ graphically represents lines which are

   (a) parallel
   (b) intersecting at (b, a)
   (c) coincident
   (d) intersecting at (a, b)

3. The sum of the digits of a two–digit number is 9. If 27 is added to it, the digit of number get reversed. The number is

   (a) 25
   (b) 72
   (c) 63
   (d) 36

4. The pair of equations $5x - 15y = 8$ and $3x - 9y = \dfrac{24}{5}$ has

   (a) one solution
   (b) two solutions
   (c) infinite solutions
   (d) no solution

5. The father's age is six times his son's age. Four years hence, the age of the father will be four times his son. The present ages (in years) of the son and the father are, respectively.

   (a) 4 and 24
   (b) 5 and 30
   (c) 6 and 36
   (d) 3 and 24

6. If $x = a, y = b$ is the solution of the equations $x - y = 2$ and $x + y = 4$, then the values of a and b are, respectively

   (a) 3 and 5
   (b) 5 and 3
   (c) 3 and 1
   (d) -1 and -3

7. Solve the following system of linear equations and

   $ax + by - a + b = 0$
   $bx - ay - a - b = 0.$

   The value of x and y are

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

8. The difference between two numbers is 26 and one number is three times the other number. The numbers are

   (a) 39 and 26
   (b) 39 and 41
   (c) 39 and 13
   (d) None of these

9. The values of x and y for the following pair of linear $41x + 53y = 135$ and $53x + 41y = 147$.

   (a) $x = 2, y = 3$
   (b) $x = 1, y = 2$
   (c) $x = 3, y = 2$
   (d) $x = 2, y = 1$

10. The pair of equations $3^{x+y} = 81, 81^{x-y} = 3$ has

    (a) no solution
    (b) unique solution
    (c) infinitely many solutions
    (d) $x = 2\dfrac{1}{8}, y = 1\dfrac{7}{8}$

11. The sum of a two–digit number and the number formed by interchanging its digits is 110. If 10 is subtracted from the first number, the new number is 4 more than 5 times the sum of the digits in the first number. Then, the first number is 64.

    (a) True
    (b) False
    (c) Cannot say
    (d) Partially true/false

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

    (a) $-\dfrac{5}{4}$
    (b) $\dfrac{2}{5}$
    (c) $\dfrac{15}{4}$
    (d) $\dfrac{3}{2}$

13. The value of c for which the pair of equation $cx - y = 2$ and $6x - 2y = 3$ will have infinitely many solutions is

    (a) 3   (b) −3   (c) −12   (d) no value

14. For what value of k, do the equations $3x - y + 8 = 0$ and $6x - ky = -16$ represent coincident lines?

    (a) $\dfrac{1}{2}$ (b) $-\dfrac{1}{2}$ (c) 2   (d) −2

15. Graphically, the pair of equations, $6x - 3y + 10 = 0; 2x - y + 9 = 0$ represents two lines which are

    (a) intersecting at exactly one point   (b) intersecting at exactly two points

    (c) coincident   (d) parallel

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

    (a) parallel   (b) always coincident

    (c) intersecting or coincident   (d) always intersecting

17. If the lines given by $3x + 2ky = 2$ and $2x + 5y + 1 = 0$ are parallel, then value of k is

    (a) $\dfrac{-5}{4}$ (b) $\dfrac{2}{5}$ (c) $\dfrac{15}{4}$ (d) $\dfrac{3}{2}$

18. The sum of a two digit number and the number obtained by interchanging its digits is 99. the digits differ by 3 then the number is

    (a) 36   (b) 33   (c) 66   (d) None of them