Chapter – 11

Algebra

Worksheet – 1

1. Express perimeter of a regular pentagon through a variable equation? (Take n as the variable)
   a. 2n
   b. 3n
   c. 5n
   d. 6n
2. Express perimeter of a square in the form of a variable equation? (Take L as the variable)
   a. 2L
   b. 3L
   c. 4L
   d. 6L
3. Express perimeter of a rectangle in the form of a variable equation? (take l and b as length and breadth)
   a. (l + b)
   b. 2(l + b)
   c. 3(l + b)
   d. 4(l + b)
4. 6 more than a number can be written as:
   a. x + 5
   b. x + 6
   c. x + 7
   d. x + 8
5. 5 added to a number is equal to 8. Write an equation expressing the relation?
   a. x + 5 = 8
   b. x – 5 = 8
   c. x – 5 = – 8
   d. x + 5 = – 8
6. Abhinav is making a drawing by joining dots. He has 9 dots in a row. How many dots will his drawing have for ‘p’ rows?
   a. 9 + p

b. 99
c. 9 – p
d. 9P

7. Which of the following is expression with one variable?
   a. (x + y + z)
   b. (y + 1)
   c. 1
   d. (x + y – 5)
8. The length of a rectangular room is 5 meters less than 2 times the breadth of the wall. What is the length if breadth is b meters?
   a. 10b
   b. 2b + 5
   c. 2b – 5
   d. None of the above
9. Express perimeter of a regular hexagon through a variable equation? (Take n as the variable)
   e. 2n
   f. 3n
   g. 5n
   h. 6n
10. A teacher distributes 6 sweets to each of her students in the class. If there are 's' number of students in the class, then how many sweets are required?
    a. 6 – s
    b. 6 + s
    c. 6s
    d. 6/s

11. Think of a number. Multiply it by 5 and add 6 to the product and subtract y subsequently. Find the resulting number?
12. Identify the terms of the algebraic expression: $6ab^2 + 4c^2 – 4ab + 9$?
13. Write algebraic expression for "8 times number x is less than variable y"?
14. If the side of an equilateral triangle is y, then find its perimeter?
15. If x = 4, then find the value of the following:
    a. 3x + 5
    b. 6x
    c. 4x – 8

d. $2(x + 7)$

16. If $x = 4$ and $y = 5$, then find the value of the following:
    a. $X + y + 6$
    b. $X + y – 7$
    c. $X – y + 8$
    d. $X – y – 2$
17. If $\frac{5}{7} x = 20$, then find the value of x?
18. Check whether $3x – 5 = 4x – 9$ is correct for which value of x?
19. For which value of x, the equation $4x – 19$ is equal to 1?
20. For which value of x, the equation $5x – 20$ is equal to 20?