

**Chapter- 21****FRAMING ALGEBRAIC EXPRESSIONS****WORKSHEET**

1. 5 more than twice a number  $x$  is written as

- (a)  $5 + x + 2$
- (b)  $2x + 5$
- (c)  $2x - 5$
- (d)  $5x + 2$

2. The quotient of  $x$  by 2 is added to 5 is written as

- (a)  $x/2 + 5$
- (b)  $2/x+5$
- (c)  $(x+2)/ 5$
- (d)  $x/ (2+5)$

3. The quotient of  $x$  by 3 is multiplied by  $y$  is written as

- (a)  $x/3y$
- (b)  $3x/y$
- (c)  $3y/x$
- (d)  $xy/3$

4. 9 taken away from the sum of  $x$  and  $y$  is

- (a)  $x + y - 9$
- (b)  $9 - (x+y)$
- (c)  $x+y/ 9$
- (d)  $9/ x+y$

5. The quotient of  $x$  by  $y$  added to the product of  $x$  and  $y$  is written as

- (a)  $x/y + xy$
- (b)  $y/x + xy$
- (c)  $xy+x/ y$
- (d)  $xy+y/ x$

6.  $a^2b^3 \times 2ab^2$  is equal to

- (a)  $2a^3b^4$
- (b)  $2a^3b^5$
- (c)  $2ab$
- (d)  $a^3b^5$

7.  $4a^2b^3 \times 3ab^2 \times 5a^3b$  is equal to

- (a)  $60a^3b^5$
- (b)  $60a^6b^5$
- (c)  $60a^6b^6$
- (d)  $a^6b^6$

8. If  $2x^2y$  and  $3xy^2$  denote the length and breadth of a rectangle, then its area is

- (a)  $6xy$
- (b)  $6x^2y^2$
- (c)  $6x^3y^3$
- (d)  $x^3y^3$

9. In a room there are  $x^2$  rows of chairs and each row contains  $2x^2$  chairs. The total number of chairs in the room is

- (a)  $2x^3$
- (b)  $2x^4$
- (c)  $x^4$
- (d)  $x^4/2$

10.  $a^3 \times 2a^2b \times 3ab^5$  is equal to

- (a)  $a^6b^6$
- (b)  $23a^6b^6$
- (c)  $6a^6b^6$
- (d) None of these.

11. If  $x = 5$  and  $y = 4$ , evaluate:

- (i)  $8xy$

(ii)  $3x^2y$

(iii)  $3y^2$

12. If  $y = 5$  and  $z = 2$ , evaluate:

(i)  $100yz$

(ii)  $9y^2z$

(iii)  $5y^2$

(iv)  $(5z)^3$

13. If  $x = 2$  and  $y = 10$ , evaluate:

(i)  $30xy$

(ii)  $50xy^2$

(iii)  $(10x)^2$

(iv)  $5y^2$

14. If  $m = 3$  and  $n = 7$ , evaluate:

(i)  $12mn$

(ii)  $5mn^2$

(iii)  $(10m)^2$

15. From the formula  $B = 2a^2 - b^2$ , calculate the value of  $B$  when  $a = 3$  and  $b = -1$ .

16. The wages ₹  $W$  of a man earning ₹  $x$  per hour for  $t$  hours are given by the formula  $W = xt$ . Find his wages for working 40 hours at a rate of ₹ 39.45 per hour.

17. The temperature in Fahrenheit scale is represented by  $F$  and the temperature in Celsius scale is represented by  $C$ . If  $F = \frac{9}{5} \times C + 32$ , find  $F$  when  $C = 40$ .

18. The number of bacteria in a culture is  $x$  now. It becomes square of itself after one week. What will be its number after two weeks?

19. The area of a rectangle is given by the product of its length and breadth. The length of a rectangle is two-third of its breadth. Find its area if its breadth is  $x$  cm.
20. If there are  $x$  rows of chairs and each row contains  $x^2$  chairs. Determine the total number of chairs.
21. Think of a number. Multiply by 5. Add 6 to the result. Subtract  $y$  from this result. What is the result?
22. The number of rooms on the ground floor of a building is 12 less than the twice of the number of rooms on first floor. If the first floor has  $x$  rooms, how many rooms does the ground floor has?
23. Binny spend Rs  $a$  daily and saves Rs  $b$  per week. What is her income for two weeks?
24. Rahul scores 80 marks in English and  $x$  marks in Hindi. What is his total score in the two subjects?
25. Rohit covers  $x$  centimetres in one step. How much distance does he cover in  $y$  steps?

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