

CLASS 7 MATHEMATICS WORKSHEET

Section A — Addition of Variables

1. Simplify:

(i) $3x + 5x$

(ii) $7a + 2a$

(iii) $4p + 6p + 3p$

(iv) $8m + 3n + 2m + 5n$

(v) $12x + 5y + 3x + 2y$

2. Find the missing number:

(i) $5x + \square x = 12x$

(ii) $7a + 3a + \square a = 15a$

(iii) $4p + \square p + 2p = 11p$

Section B — Subtraction of Variables

3. Simplify:

(i) $9x - 4x$

(ii) $12a - 7a$

(iii) $15p - 6p - 3p$

(iv) $10m - 3n - 4m + 2n$

(v) $18x - 7y - 5x + 2y$

4. Fill in the missing number:

(i) $11x - \square x = 6x$

(ii) $15a - \square a = 9a$

(iii) $\square p - 4p = 8p$

Section C — Multiplication of Variables

5. Multiply:

(i) $3 \times x$

- (ii) $5 \times a$
- (iii) $4x \times 3$
- (iv) $2a \times 5$
- (v) $3x \times 4y$
- (vi) $5a \times 2b$

6. Simplify:

- (i) $x \times x$
- (ii) $a \times a$
- (iii) $3x \times 2x$
- (iv) $4a \times 3a$
- (v) $2p \times 5q$

Remember: $x \times x = x^2$ and $3x \times 4x = 12x^2$

Section D — Substitution: Put the Values

- 7. Find $3x + 5$, when $x = 4$.**
- 8. Find $7a - 3$, when $a = 6$.**
- 9. Find $2p + 4q$, when $p = 3$ and $q = 5$.**
- 10. Find $5m - 2n$, when $m = 8$ and $n = 3$.**
- 11. Find $3x \times 2y$, when $x = 4$ and $y = 5$.**
- 12. Find $x^2 + 3x$, when $x = 5$.**
- 13. Find $2a^2 - 3a$, when $a = 4$.**

Section E — Find the Missing Number in the Sequence

- 14. 3, 6, 9, 12, $\square$, $\square$**
- 15. 5, 10, 15, 20, $\square$, $\square$**
- 16. 2, 5, 8, 11, $\square$, $\square$**
- 17. 20, 17, 14, 11, $\square$, $\square$**
- 18. 4, 8, 16, 32, $\square$, $\square$**
- 19. 7, 12, 17, $\square$, 27, 32**

20. 50, 45, 40, □, 30, 25

Section F — Algebraic Sequence Challenge

21. The sequence is:

2, 5, 8, 11, 14, ...

(a)

(b) Write the next three terms.

22. Complete the table for the sequence $3n + 2$.

n	1	2	3	4	5
$3n + 2$	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

23. A sequence follows the rule:

$$5n - 1$$

Find its first five terms.

🔍 HOTS Challenge

24. I am thinking of a number x . When I multiply it by 3 and add 7, I get 25.

$$3x + 7 = 25$$

Find x .

25. Find the missing number:

4, 7, 10, 13, □, 19

Now write an algebraic rule for this sequence using n .