



In this worksheet you will learn to factorise algebraic expressions by extracting common factors and grouping terms.

## Easy Questions

1. Factorise the expression  $2x + 6$ .
2. Factorise the expression  $3y + 9$ .
3. Factorise the expression  $8x^2 + 4x$ .
4. Factorise the expression  $5a - 15$ .
5. Factorise the expression  $7m^2 + 14m$ .

## Intermediate Questions

6. Factorise the expression  $ax + ay + bx + by$ .
7. Factorise the expression  $2x^2 + 4x + 3x + 6$ .
8. Factorise the expression  $3xy + 6y + 2x + 4$ .
9. Factorise the expression  $4a^2 + 8a - 3a - 6$ .
10. Factorise the expression  $5mn + 15m + 2n + 6$ .
11. Factorise the expression  $3x + 3 + 2xy + 2y$ .
12. Factorise the expression  $x^2 + 5x + 2x + 10$ .
13. Factorise the expression  $2x^2 + 6x + x + 3$ .
14. Factorise the expression  $6xy + 9y + 4x + 6$ .
15. Factorise the expression  $ax + 2a + 3x + 6$ .
16. Factorise the expression  $2x^2 + 8x + 3x + 12$ .
17. Factorise the expression  $5x + 10 + 3xy + 6y$ .
18. Factorise the expression  $2a^2 + 4a + 3a + 6$ .
19. Factorise the expression  $xy + x + 2y + 2$ .
20. Factorise the expression  $4m^2 + 8m + 3m + 6$ .

## Hard Questions

21. Factorise the expression  $2ax + 2ay + 5bx + 5by$ .
22. Factorise the expression  $4x^2 + 2x + 10x + 5$ .
23. Factorise the expression  $3x^2 + 6x + 2x + 4$ .
24. Factorise the expression  $5ab + 10a + 3b + 6$ .
25. Factorise the expression  $7x + 21 + 4xy + 12y$ .
26. Factorise the expression  $9m + 12 + 6mn + 8n$ .
27. Factorise the expression  $4x + 8 + 6xy + 12y$ .
28. Factorise the expression  $10a + 15 + 4ab + 6b$ .
29. Factorise the expression  $8x + 12 + 2xy + 3y$ .
30. Factorise the expression  $5p + 10 + 4pq + 8q$ .