



In this worksheet you will learn to factorise algebraic expressions by extracting common factors and grouping terms. Remember to extract the greatest common factor from each group where possible.

Easy Questions

1. Factorise $6x + 9$.
2. Factorise $4a + 8$.
3. Factorise $12p^2 - 20p$.
4. Factorise $15x^2y + 10xy$.
5. Factorise $7a + 14$.

Intermediate Questions

6. Factorise $2x^2 + 4x + 3x + 6$.
7. Factorise $x^3 + 2x^2 - x - 2$.
8. Factorise $xy - 2x + 3y - 6$.
9. Factorise $4ab + 8a + 3b + 6$.
10. Factorise $5x^2 + 10x + 3x + 6$.
11. Factorise $9xy - 6x + 3y - 2$.
12. Factorise $8m + 12n + 10m + 15n$.
13. Factorise $6x + 18$.
14. Factorise $7a + 14b + 21a + 42b$.
15. Factorise $3p^2 + 9p + 2p + 6$.
16. Factorise $4x^2 - 2x + 6x - 3$.
17. Factorise $10xy - 5y + 2x - 1$.
18. Factorise $12a^2b + 18ab + 4a + 6$.
19. Factorise $15x + 20y + 9x + 12y$.
20. Factorise $14m^2 + 21m - 2m - 3$.

Hard Questions

21. Factorise $3x^3 + 9x^2 + 2x + 6$.
22. Factorise $8x^3 + 12x^2 + 2x + 3$.
23. Factorise $6xy + 9x + 4y + 6$.
24. Factorise $12ab^2 + 18ab + 8b + 12$.
25. Factorise $5x^3 + 10x^2 - 3x - 6$.
26. Factorise $14m^2n + 21mn + 4m + 6$.
27. Factorise $9x^2y + 6xy + 3x + 2$.
28. Factorise $8a^2b + 12ab + 2a + 3$.
29. Factorise $16x^3 + 24x^2 + 10x + 15$.
30. Factorise $21p^2 + 14p + 9p + 6$.