In this worksheet you will extend your factorisation techniques to handle more complex trinomials. You will practice splitting the middle term and grouping, applying your knowledge to trinomials with a leading coefficient other than 1.

Easy Questions

1. Find the factorisation of $2x^2 + 5x + 3$.

2. Factorise $3x^2 + 8x + 4$ by splitting the middle term.

3. Factorise $x^2 + 7x + 12$.

4. Factorise $4x^2 + 11x + 6$.

5. Factorise $5x^2 + 13x + 6$.

Intermediate Questions

1. Factorise $6x^2 + 17x + 5$.

2. Find the factors of $6x^2 + x - 2$.

3. Factorise $12x^2 + 5x - 3$.

4. Factorise $5x^2 + 16x + 3$.

5. Factorise $2x^2 - 11x - 21$.

6. Factorise $7x^2 + 19x + 12$.

7. Factorise $10x^2 - 3x - 7$.

8. Factorise $14x^2 + 23x + 8$.

9. Factorise $15x^2 - 14x - 8$.

10. Factorise $8x^2 - 5x - 3$.

11. Factorise $10x^2 + 9x + 2$.

12. Factorise $6x^2 - 7x - 3$.

13. Factorise $4x^2 + 13x + 3$.

14. Factorise $9x^2 - 29x + 20$.

15. Factorise $10x^2 + 3x - 7$.

Hard Questions

1. Factorise $12x^2 + 17x - 5$.

2. Factorise $16x^2 - 8x - 15$.

3. Factorise $18x^2 + 29x + 10$.

4. Factorise $20x^2 - 7x - 3$.

5. Factorise $24x^2 + 37x - 5$.

6. Factorise $32x^2 + 10x - 3$.

7. Factorise $20x^2 - 33x + 10$.

8. Factorise $15x^2 + 2x - 8$.

9. Factorise $28x^2 - 17x - 3$.

10. Factorise $36x^2 + 7x - 15$.