

Quadratics Sketching

Understanding quadratics fully is essential for GCSE and C1 and beyond. Sketch the following quadratic curves, labelling the coordinates of the turning points and where the curve crosses both the x and y -axes.

1. $y = (x - 3)(x + 4)$.

2. $y = (x + 1)^2 - 4$.

3. $y = x^2 + 3x - 4$.

4. $y = (2x - 1)(x + 5)$.

5. $y + 9 = x^2$.

6. $y = -x^2 - x + 6$.

7. $y = 2x^2 - 8x + 8$.

8. $y + x^2 = 2x + 35$.

9. $y = (-x + 3)^2 - 16$.

10. $y = (2 - x)^2 + 2$.

11. $y = -x^2 + 2x + 8$.

12. $y = x^2 - 6x + 5$.

13. $y = x^2 + 5x + 5$.

14. $y = 2x^2 - 10x - 3$.

15. $y = 5x^2 + 15x - 4$.

16. $y = x^2 - 6x + 11$.

17. $y = -3x^2 - 12x + 15$.

18. $y = -x^2 + 3x - 5$.