

QUADRATIC EQUATIONS – ANSWERS

Year Group: 9, Ability: Higher, Tier: higher, Grade Range: 3-5, Exam Board: Edexcel,
Develop Topic: quadratic equations, Question Count: 30, Timestamp: 2025-05-09 17:58:50

ANSWERS

SPIRAL

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| 1. 3773 | 2. 293.3 |
| 3. 3082 | 4. 54.5 |
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DEVELOP

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| 1. $x^2 + 5x + 6$ | 2. $x^2 + x - 20$ |
| 3. $2x^2 - 5x - 3$ | 4. $(x + 3)(x + 4)$ |
| 5. $(x - 2)(x - 3)$ | 6. $(x - 9)(x + 9)$ |
| 7. $x = -2, -4$ | 8. $x = 4, 5$ |
| 9. $x = 7, -7$ | 10. $x = -0.5, -3$ |
| 11. $x = 4, -2/3$ | 12. $(x + 3)(x + 5)$ |
| 13. $(x - 6)(x - 4)$ | 14. $x = -4, 2$ |
| 15. $x = 0.5, -5$ | 16. $x^2 + 3x - 10 = 0$ $x = 2, -5$ |
| 17. $2x^2 - 5x + 3 = 0$ $x = 1, 1.5$ | 18. $x^2 + 4x - 60 = 0$ $x = 6$ |
| 19. $x^2 + x - 72 = 0$ $x = 8, -9$ (integers 8 & 9 or -9 & -8) | 20. $x = 2.5, -2.5$ |
| 21. $(3x + 2)(x + 3)$ | 22. $x = -2/3, -3$ |
| 23. $x^2 + 14x + 49$ | 24. $9x^2 - 12x + 4$ |
| 25. $(2x - 3)(2x + 3)$ | 26. $x = 1.5, -1.5$ |
| 27. $x = 3, -5$ | 28. $x = 3, 0.5$ |
| 29. $x = 1, -0.2$ | 30. $x = 6, -2$ |
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APPLY

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| 1. Equation: $(2x + 1)(x - 2)/2 = 24$ $2x^2 - 3x - 50 = 0$ $x = 5$ (discard negative solution) | 2. Equation: $x + 1/x = 2.9$ $x^2 - 2.9x + 1 = 0$ $x = 2.5$ or 0.4 |
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