

# Solving Quadratic Equations (B) by Factorising



## ANSWERS

### Section A

Find the solutions to the following equations.

- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| 1) $(x + 2)(x + 3) = 0$ -2, -3      | 4) $(4x + 8)(2x - 8) = 0$ -2, +4    |
| 2) $(4x + 3)(x - 3) = 0$ -3/4, +3   | 5) $(5x - 15)(4x - 2) = 0$ +3, +1/2 |
| 3) $(2x - 5)(3x + 2) = 0$ 5/2, -2/3 | 6) $(9x - 12)(5x + 20) = 0$         |

4/3, -4

Solve the following equations by factorising.

### Section B

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|-------------------------------|--------------------------------|
| 1) $x^2 + 8x + 15 = 0$ -3, -5 | 6) $x^2 + 11x - 26 = 0$ 2, -13 |
| 2) $x^2 - 7x + 12 = 0$ 4, 3   | 7) $x^2 - 5x - 24 = 0$ 8, -3   |
| 3) $x^2 + 2x - 15 = 0$ 3, -5  | 8) $14 + x^2 + 9x = 0$ -2, -7  |
| 4) $x^2 - 11x + 28 = 0$ 7, 4  | 9) $7 + x^2 - 18x = -25$ 16, 2 |
| 5) $x^2 - x - 30 = 0$ 6, -5   | 10) $x^2 = 17x - 72$ 8, 9      |

### Section C

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|----------------------------|-----------------------------|
| 1) $x^2 - 9 = 0$ -3, 3     | 6) $x^2 - 20 = 5$ -5, 5     |
| 2) $x^2 - 121 = 0$ -11, 11 | 7) $x^2 - 101 = -1$ -10, 10 |
| 3) $x^2 - 49 = 0$ -7, 7    | 8) $4x^2 - 17 = -1$ -2, 2   |
| 4) $2x^2 - 128 = 0$ -8, 8  | 9) $3x^2 - 16 = 227$ -9, 9  |
| 5) $4x^2 - 64 = 0$ -4, 4   | 10) $3x^2 - 55 = 53$ -6, 6  |

### Section D

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|------------------------------------|----------------------------------------|
| 1) $2x^2 + 15x + 25 = 0$ -2.5, -5  | 4) $12x^2 - 28x - 5 = 0$ -1/6, 2.5     |
| 2) $2x^2 - 7x - 15 = 0$ -1.5, 5    | 5) $28x^2 - 85x + 63 = 0$ 1 2/7, 1 3/4 |
| 3) $3x^2 + 14x - 24 = 0$ -6, 1 1/3 | 6) $19x - 12 - 5x^2 = 0$ 0.8, 3        |