

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) $(4x + 3)(x - 3) = 0$ **$-\frac{3}{4}, +3$**

5) $(5x - 15)(4x - 2) = 0$ **+3, $+\frac{1}{2}$**

3) $(2x - 5)(3x + 2) = 0$ **$\frac{5}{2}, -\frac{2}{3}$**

6) $(9x - 12)(5x + 20) = 0$ **$\frac{4}{3}, -4$**

Section B Solve the following equations by factorising.

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) $7 + x^2 - 8x = -25$ **16, 2**

5) $x^2 - x - 30 = 0$ **6, -5**

10) $x^2 = 17x - 72$ **8, 9**

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Section C *Factorise and then solve.*

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 *Factorise and then solve.*

1) $2x^2 + 15x + 25 = 0$ **-2.5, -5**

4) $12x^2 - 28x - 5 = 0$ **$-\frac{1}{6}, 2.5$**

2) $2x^2 - 7x - 15 = 0$ **-1.5, 5**

5) $28x^2 - 85x + 63 = 0$ **$1\frac{2}{7}, 1\frac{3}{4}$**

3) $3x^2 + 14x - 24 = 0$ **$-6, 1\frac{1}{3}$**

6) $19x - 12 - 5x^2 = 0$ **0.8, 3**