Factorising and solving quadratic equations

Factorise and then solve the quadratic equations.

Exercise 1

1. $x^2 + 7x + 12 = 0$
2. $x^2 + 4x + 4 = 0$
3. $x^2 + 8x + 12 = 0$
4. $x^2 + 8x + 15 = 0$
5. $x^2 + 5x = 0$
6. $x^2 + 10x + 16 = 0$
7. $x^2 + 11x + 30 = 0$
8. $x^2 + 11x + 10 = 0$
9. $x^2 + 10x + 21 = 0$
10. $x^2 + 2x + 1 = 0$
11. $x^2 + 14x + 33 = 0$
12. $x^2 + 25x + 156 = 0$

Exercise 2

1. $x^2 - 3x + 2 = 0$
2. $x^2 - 6x + 8 = 0$
3. $x^2 - 8x + 15 = 0$
4. $x^2 - 16x + 63 = 0$
5. $x^2 - 9x = 0$
6. $x^2 - 8x + 7 = 0$
7. $x^2 - 16x + 64 = 0$
8. $x^2 - 11x + 30 = 0$
9. $x^2 - 20x + 100 = 0$
10. $x^2 - 2x + 1 = 0$
11. $x^2 - x = 0$
12. $x^2 - 18x + 77 = 0$

Exercise 3

1. $x^2 - 2x - 3 = 0$
2. $x^2 + 2x - 8 = 0$
3. $x^2 - 3x - 10 = 0$
4. $x^2 + 4x - 21 = 0$
5. $x^2 - 16 = 0$
6. $x^2 - 1 = 0$
7. $x^2 + 3x - 40 = 0$
8. $x^2 - 4x - 21 = 0$
9. $x^2 + 3x = 0$
10. $x^2 - x + 110 = 0$
11. $x^2 + 2x - 48 = 0$
12. $x^2 - 2x - 63 = 0$

Exercise 4

1. $x^2 + 4x + 4 = 0$
2. $x^2 - 4x + 4 = 0$
3. $x^2 - 4 = 0$
4. $x^2 + 7x + 12 = 0$
5. $x^2 - x - 12 = 0$
6. $x^2 - 18x + 77 = 0$
7. $x^2 + 10x + 24 = 0$
8. $x^2 - 9x + 20 = 0$
9. $x^2 = 0$
10. $x^2 - x - 156 = 0$
11. $x^2 + 9x = 0$
12. $x^2 + 3x - 40 = 0$