

Expanding and Factorising Quadratics

Question Paper

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	Expanding and Factorising Quadratics
Grade Level	Grade 5
Booklet	Question Paper

Time Allowed: 112 minutes

Score: /93

Percentage: /100

Grade Boundaries:

1. (a) Factorise fully $2x^2 - 4xy$

.....
(2)

(b) Factorise $p^2 - 6p + 8$

.....
(2)

(c) Simplify $\frac{(x+2)^2}{x+2}$

.....
(1)

(d) Factorise $x^2 - 100$

.....
(2)

(7 marks)

2. (a) Simplify $x^5 \times x^4$

.....
(1)

(b) Simplify $y^7 \div y^2$

.....
(1)

(c) Expand and simplify $3(2a + 5) + 5(a - 2)$

.....
(2)

(d) Expand and simplify $(y + 5)(y + 7)$

.....
(2)

(e) Factorise $p^2 - 6p + 5$

.....
(2)

(8 marks)

3. (a) Expand and simplify $(p + 9)(p - 4)$

.....
(2)

(b) Factorise $x^2 - 11x + 18$

.....
(2)

(c) Factorise $x^2 - 49$

.....
(2)

(d) Simplify $(9x^8y^3)^{\frac{1}{2}}$

.....
(2)

(8 marks)

4. (a) Expand $3(2y - 5)$

.....
(1)

(b) Factorise completely $8x^2 + 4xy$

.....
(2)

(c) Expand and simplify $(p + 7)(p - 8)$

.....
(2)

(d) Factorise $x^2 - 169$

.....
(2)

(7 marks)

5. (a) Expand $4(3x + 5)$

.....
(1)

(b) Expand and simplify $3(x - 4) - 2(x + 5)$

.....
(2)

(c) Expand and simplify $(x + 4)(x + 6)$

.....
(2)

(5 marks)

6. (a) Factorise $x^2 + 7x$

.....
(1)

(b) Factorise $y^2 - 10y + 16$

.....
(2)

(c) Solve $y^2 - 10y + 16 = 0$

.....
(2)

(5 marks)

7. (a) Expand and simplify $3(x + 4) + 2(5x - 1)$

.....
(2)

(b) Expand and simplify $(2x + 1)(x - 4)$

.....
(2)

(c) Factorise completely $6y^2 - 9xy$

.....
(2)

(6 marks)

8. (a) Expand $x(x + 2)$

.....
(2)

(b) Expand and simplify $(x + 3)(x - 4)$

.....
(2)

(c) Factorise completely $2y^2 - 4y$

.....
(2)

(d) Factorise $x^2 - 9$

.....
(2)

(8 marks)

9. (a) Expand and simplify $(3x + 5)(4x - 1)$

.....
(2)

(b) Factorise $x^2 - 3x - 10$

.....
(2)

(c) Solve $x^2 - 3x - 10 = 0$

$x =$
(2)

(6 marks)

10. (a) Expand $3(4x + y)$

(2)

(b) Expand $5p(p - 3)$

.....
(1)

(c) Expand and simplify $(y + 8)(y - 3)$

.....
(2)

(d) Expand and simplify $(2t - 3)^2$

.....
(2)

.....
(7 marks)

11. (a) Factorise fully $6y^2 + 12y$

(2)

(b) Factorise $k^2 + 13k + 30$

(2)

(c) Solve $k^2 + 13k + 30 = 0$

(2)

(6 marks)

12. (a) Factorise $5x - 10$

(1)

(b) Factorise fully $2p^2 - 4pq$

(2)

(c) Expand and simplify $(t + 5)(t - 4)$

(2)

(d) Factorise $x^2 + 17x + 60$

(2)

(e) Factorise $x^2 - 144$

(2)

(9 marks)

13. (a) Factorise $8x - 20$

.....
(1)

(b) Factorise fully $10x^2 - 15xy$

.....
(2)

(c) Factorise $x^2 - 64$

.....
(2)

(d) Expand and simplify $(x + 7)(x - 5)$

.....
(2)

(e) Factorise $x^2 + 2x - 15$

.....
(2)

(f) Solve $x^2 + 2x - 15 = 0$

.....
(2)

(11 marks)
