Name: _____

GCSE (1 – 9)
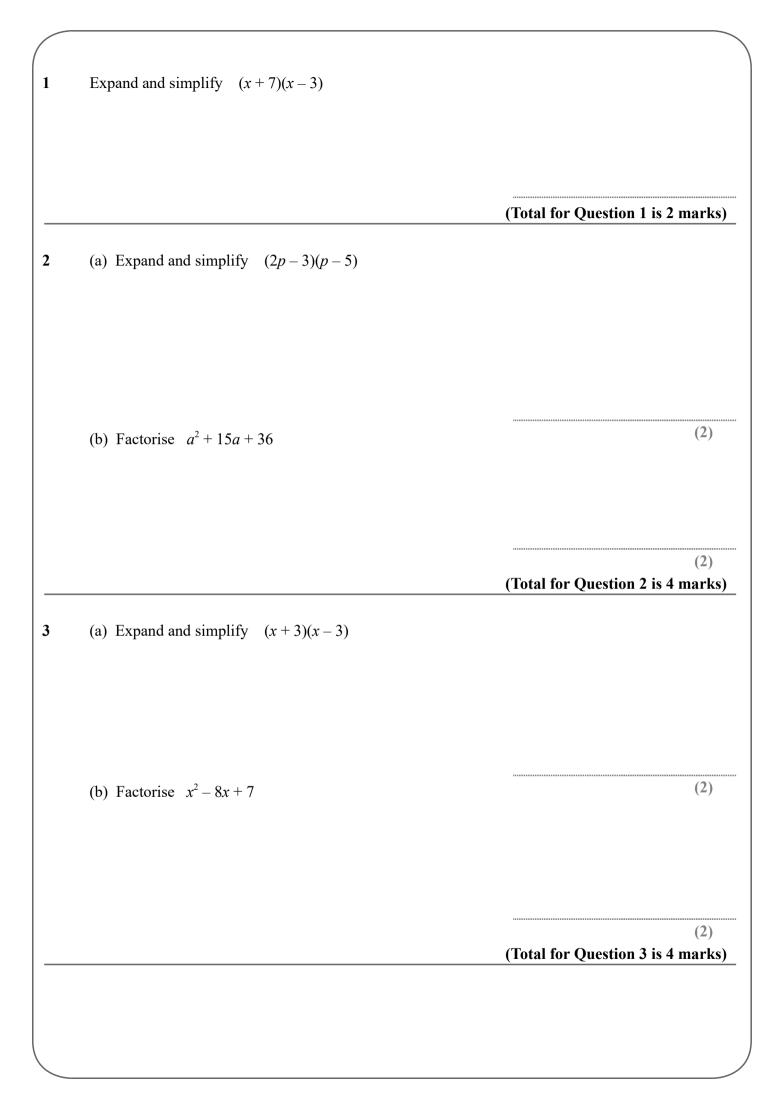
Expanding and Factorising Quadratics

Instructions

• Use **black** ink or ball-point pen.
• Answer all Questions.
• Answer the Questions in the spaces provided
– *there may be more space than you need.*
• Diagrams are **NOT** accurately drawn, unless otherwise indicated.
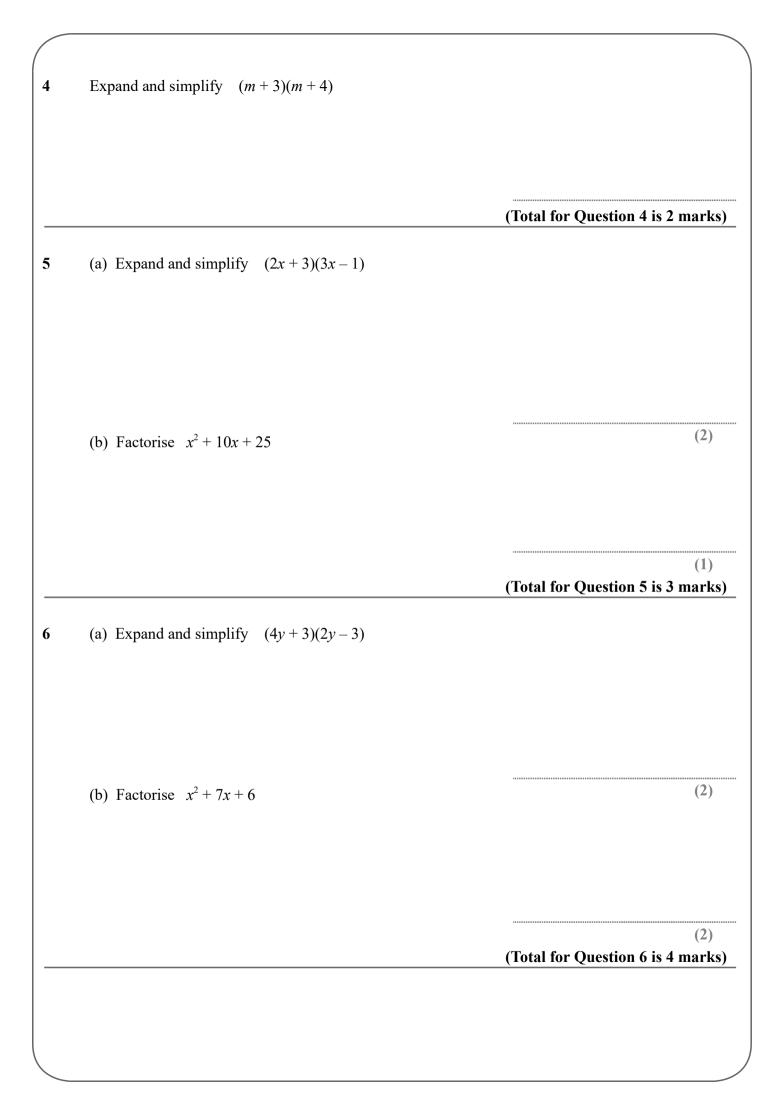• You must **show all your working out.**

Information

• The marks for each Question are shown in brackets
– *use this as a guide as to how much time to spend on each Question.*

Advice

• Read each Question carefully before you start to answer it.
• Keep an eye on the time.
• Try to answer every Question.
• Check your answers if you have time at the end

1 Expand and simplify $(x + 7)(x - 3)$

....

(Total for Question 1 is 2 marks)

2 (a) Expand and simplify $(2p - 3)(p - 5)$

....

(2)

(b) Factorise $a^2 + 15a + 36$

....

(2)

(Total for Question 2 is 4 marks)

3 (a) Expand and simplify $(x + 3)(x - 3)$

....

(2)

(b) Factorise $x^2 - 8x + 7$

....

(2)

(Total for Question 3 is 4 marks)

4   Expand and simplify $(m + 3)(m + 4)$

....

(Total for Question 4 is 2 marks)

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

....

(2)

     (b)   Factorise $x^2 + 10x + 25$

....

(1)

(Total for Question 5 is 3 marks)

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6   (a)   Expand and simplify $(4y + 3)(2y - 3)$

....

(2)

     (b)   Factorise $x^2 + 7x + 6$

....

(2)

(Total for Question 6 is 4 marks)

7 Expand and simplify $(x - 2)(x - 9)$

....

(Total for Question 7 is 2 marks)

8 (a) Expand and simplify $(5h + 2)(h + 4)$

....

(2)

(b) Factorise $x^2 - 49$

....

(1)

(Total for Question 8 is 3 marks)

9 (a) Expand and simplify $(3x - 5)(2x - 3)$

....

(2)

(b) Factorise $n^2 - 3n - 18$

....

(2)

(Total for Question 9 is 4 marks)

10 Expand and simplify $(x + 6)(3x + 8)$

....

(Total for Question 10 is 2 marks)

11 (a) Expand and simplify $(x - 6)(x - 7)$

....

(2)

(b) Factorise $x^2 - 16$

....

(1)

(Total for Question 11 is 3 marks)

12 (a) Expand and simplify $(2x + 1)(5x - 9)$

....

(2)

(b) Factorise $x^2 - 13x + 36$

....

(2)

(Total for Question 12 is 4 marks)

13 Expand and simplify $(a-7)^2$

....

(Total for Question 13 is 2 marks)

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

....

(2)

(b) Factorise $x^2 - 100$

....

(1)

(Total for Question 14 is 3 marks)

15 (a) Expand and simplify $(3d-2)(d+7)$

....

(2)

(b) Factorise $x^2 - 3x - 40$

....

(2)

(Total for Question 15 is 4 marks)

16 Factorise $n^2 + 3n - 28$

....

(Total for Question 16 is 2 marks)

17 (a) Expand and simplify $(a - 5)(a + 6)$

....

(2)

(b) Factorise $b^2 - 81$

....

(1)

(Total for Question 17 is 3 marks)

18 (a) Expand and simplify $(2x + 5)(x + 9)$

....

(2)

(b) Factorise $y^2 - 7y + 12$

....

(2)

(Total for Question 18 is 4 marks)

19 Factorise $m^2 - m - 30$

....

(Total for Question 19 is 2 marks)

20 (a) Expand and simplify $(5a - 1)(2a - 7)$

....

(2)

(b) Factorise $b^2 - 144$

....

(1)

(Total for Question 20 is 3 marks)

21 (a) Expand and simplify $(7x + 1)(x + 5)$

....

(2)

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

....

(2)

(Total for Question 21 is 4 marks)