

Expanding Quadratics
Exam Style Questions

1. Expand and simplify $(x + 1)(x + 2)$

..... (2 marks)

2. Expand and simplify $(2x + 3)(x + 4)$

..... (2 marks)

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

..... (2 marks)

4. Expand and simplify $(2x - 1)(3x - 2)$

..... (2 marks)

5. Expand and simplify $(x - 3)(x + 3)$

..... (2 marks)

6. Expand and simplify $(2x + 1)(2x - 1)$

..... (2 marks)

7. Expand and simplify $7(x - 5)(x - 1)$

..... (2 marks)

8. Expand and simplify $(4x + 1)^2$

..... (2 marks)

9. Expand and simplify $(x + 1)(x - 2) + (x + 7)(x - 3)$

..... (3 marks)

10. Expand and simplify $(x - 1)(2x + 3) - (4x - 1)(x - 3)$

..... (3 marks)

11. Expand and simplify $x - (6x + 1)(x + 3)$

..... (3 marks)

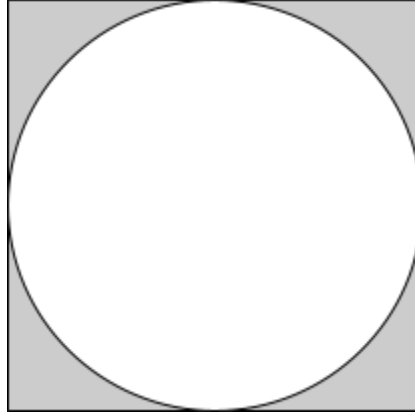
12. Expand and simplify $3x^2 - 4x - (x + 2)(4x + 1)$

..... (3 marks)

13. A triangle has a base $(x + 3)$ cm and height $(9x + 2)$ cm . Show that the area, A , can be written in the form $A = ax^2 + bx + c$ where a , b and c are values to be determined.

..... (3 marks)

14. Below is a circle enclosed within a square. The circle has a radius $(2x - 3)$ cm and the square has length $(x + 2)$ cm. Show that the area of the shaded region can be written in the form $Ax^2 + Bx + C$, where A , B and C are expressions in terms of π .



..... (5 marks)
