

Name: _____

ASM Tuition Academy
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 you're 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 time.
- Try to answer every question.
- Check your answers if you have time at the end.

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

(Total for question 1 is 2 marks)

2. Expand and simplify

a) $(2a - 4)(a - 2)$

b) Factorise $x^2 - 2x - 15$

(Total for question 2 is 4 marks)

3. Expand and simplify

a) $(x + 5)(x + 5)$

b) Factorise $3x^2 + 25x - 18$

(Total for question 3 is 4 marks)

4. Expand and simplify $(z + 5)(z - 3)$

(Total for question 4 is 2 marks)

5. Expand and simplify

a) $(7b + 3)(3b - 1)$

b) Factorise $2x^2 + x - 6$

(Total for question 5 is 3 marks)

6. Expand and simplify

a) $(3y + 2)(4y - 3)$

b) Factorise $6x^2 - x - 40$

(Total for question 6 is 4 marks)

7. Expand and simplify $(m - 5)(m - 9)$

(Total for question 7 is 2 marks)

8. Expand and simplify

a) $(6h + 2)(h + 3)$

b) Factorise $x^2 - 81$

(Total for question 8 is 3 marks)

9. Expand and simplify

a) $(2y - 5)(2y - 4)$

b) Factorise $2x^2 - 17x + 30$

(Total for question 9 is 4 marks)

10. Expand and simplify $(x + 8)(4x + 8)$

(Total for question 10 is 2 marks)

11. Expand and simplify

a) $(x - 8)(x - 9)$

b) Factorise $x^2 - 25$

(Total for question 11 is 3 marks)

12. Expand and simplify

a) $(2x + 1)(7x - 5)$

b) Factorise $x^2 + 5x - 14$

(Total for question 12 is 4 marks)

13. Expand and simplify $(b - 6)^2$

(Total for question 13 is 2 marks)

14. Expand and simplify

a) $(3x - 1)(x + 3)$

b) Factorise $x^2 - 144$

(Total for question 14 is 3 marks)

15. Expand and simplify

a) $(4e - 2)(e + 6)$

b) Factorise $x^2 + 6x + 8$

(Total for question 15 is 4 marks)

16. Factorise $x^2 - 169$

(Total for question 16 is 2 marks)

17. Expand and simplify

a) $(s - 1)(s + 3)$

b) Factorise $x^2 + 7x + 10$

(Total for question 17 is 3 marks)

18. Expand and simplify

a) $(2x + 6)(x + 2)$

b) Factorise $x^2 + 6x + 9$

(Total for question 18 is 4 marks)

19. Factorise $x^2 - 10x + 25$

(Total for question 19 is 2 marks)

20. Expand and simplify

a) $(6v - 3)(5v + 3)$

b) Factorise $6x^2 + 5x - 4$

(Total for question 20 is 3 marks)

21. Expand and simplify

a) $(9x + 2)(x + 1)$

b) Factorise $x^2 - 6x - 16$

(Total for question 21 is 4 marks)
