



JP Maths

Revision



Attempt the paper
before watching the
solutions!

[https://www.youtube.com/
@JPMathsRevision](https://www.youtube.com/@JPMathsRevision)



FOUNDATION / HIGHER TIER

Expanding Double Brackets



INSTRUCTIONS

- Use **black ink** or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.



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.*



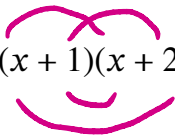
ADVICE

- 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.



You've got this!

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



$$x^2 + 2x + 1x + 2$$

$$x^2 + 3x + 2$$

(Total for Question 1 is 2 marks)

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

$$2x^2 + 8x + 3x + 12$$

$$2x^2 + 11x + 12$$

(Total for Question 2 is 2 marks)

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

$$2x^2 + x + 14x + 7$$

$$2x^2 + 15x + 7$$

(Total for Question 3 is 2 marks)

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

$$6x^2 + 4x + 3x + 2$$

$$6x^2 + 7x + 2$$

(Total for Question 4 is 2 marks)

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

$$x^2 + x - 3x - 3$$

$$x^2 - 2x - 3$$

$$x^2 - 2x - 3$$

(Total for Question 5 is 2 marks)

6. Expand and simplify $(2x - 5)(x - 5)$

$$2x^2 - 10x - 5x + 25$$

$$2x^2 - 15x + 25$$

(Total for Question 6 is 2 marks)

7. Expand and simplify $(x + 4)(x - 4)$

$$x^2 - 4x + 4x - 16$$

$$x^2 - 16$$

$$x^2 - 16$$

(Total for Question 7 is 2 marks)

8. Expand and simplify $(5x - 3)(2x - 1)$

$$10x^2 - 5x - 6x + 3$$

$$10x^2 - 11x + 3$$

$$10x^2 - 11x + 3$$

(Total for Question 8 is 2 marks)

9. Expand and simplify $(x - 1)^2$

$$(x-1)(x-1)$$

$$x^2 - x - x + 1$$

$$x^2 - 2x + 1$$

(Total for Question 9 is 2 marks)

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

$$(2x+1)(2x+1)$$

$$4x^2 + 2x + 2x + 1$$

$$4x^2 + 4x + 1$$

(Total for Question 10 is 2 marks)

11. Expand and simplify $(4x - 1)(5x - 6)$

$$20x^2 - 24x - 5x + 6$$

$$20x^2 - 29x - 6$$

(Total for Question 11 is 2 marks)

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

$$4x^2 + 2x - 2x - 1$$

$$4x^2 - 1$$

$$4x^2 - 1$$

(Total for Question 12 is 2 marks)

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

$$(4x+1)(4x+1)$$

$$16x^2 + 4x + 4x + 1$$

$$16x^2 + 8x + 1$$

(Total for Question 13 is 2 marks)

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

$$(x^2 - 2x + 1x - 2) + (x^2 - 3x + 7x - 21)$$

$$2x^2 + 3x - 23$$

(Total for Question 14 is 3 marks)

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

$$(2x^2 + 3x - 2x - 3) - (4x^2 - 12x - x + 3)$$

$$(2x^2 + x - 3) - (4x^2 - 13x + 3)$$

$$-2x^2 + 14x - 6$$

(Total for Question 15 is 3 marks)

16. A triangle has a base $(x + 3)$ cm and a height $(9x + 2)$ cm .

Form an expression for the area, giving your answer in the form $ax^2 + bx + c$ where a , b and c are values to be determined.

$$A = \frac{b \times h}{2}$$

$$= \frac{(x+3)(9x+2)}{2}$$

$$= \frac{9x^2 + 2x + 27x + 6}{2}$$

$$= \frac{9x^2 + 29x + 6}{2}$$

$$4.5x^2 + 14.5x + 3$$

.....
(Total for Question 16 is 3 marks)
