Level 2 Further Maths

Expanding Brackets

Ensure you have: Pencil or pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Revision for this topic

www.corbettmaths.com/more/further-maths/
1. (a) Expand and simplify $2(3x + 1) + 4(9 - x)$

(b) Expand $w^4(w^2 + 3)$

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

3. Expand and simplify $(m - 3)(2m + 3)$
4. Expand and simplify \((3x + 5y)(7x - 2y)\)

5. Expand and simplify \((4x + 1)^2 - (4x - 1)\)

6. Expand and simplify \((6y - 5)(3y + 2) + (1 - y)(2 - y)\)
7. Expand and simplify \((2x + y)^2 - (2x - y)^2\)

8. Expand and simplify \((x^2 + 3x - 4)(3x - 4)\)

9. Expand and simplify \(2xy(x + 2y)(3x - y)\)
10. \[ ax - 2(x + b) + 8 = 10(x + 2) \]

\[ a = \ldots \quad b = \ldots \] \hspace{1cm} (4)

11. \[ 2a(3x - 1) + 3(ax + 7) \equiv 36x + b \]

Find the values of \( a \) and \( b \)

\[ a = \ldots \quad b = \ldots \] \hspace{1cm} (4)
12. (a) Expand \((y + p)(y - q)\)

(b) \(y^2 + ay + b \equiv (y + p)(y - q)\)

Write \(a\) and \(b\) in terms of \(p\) and \(q\)

\[a = \ldots\]

\[b = \ldots\]

13. Expand and simplify \((x + 4)(4x - 3) - 2(x - 5)^2\)

\[\ldots\]
14. Simplify \((6x + 15)^2 - (5x - 10)^2 + 20x - 1\)

15. Expand and simplify \((4xy + 3x^2y^2 - 2y)(7x + x^2)\)
16. Expand and simplify \( \frac{2}{x} (2x^3 + \frac{x^2}{2} + 3x) \)