Worked answers | Algebra

Expanding single brackets

6 questions | 14 marks

Equivalent correct methods earn the corresponding marks.

1. Expand $3(x + 7)$. [2 marks]

$3x + 3(7) = 3x + 21$.

Answer: $3x + 21$

2. Expand $5(2a - 3)$. [2 marks]

Multiply both terms by 5.

Answer: $10a - 15$

3. Expand $-2(4p + 1)$. [2 marks]

$(-2)(4p) + (-2)(1) = -8p - 2$.

Answer: $-8p - 2$

4. Simplify $7 - (3x + 2)$. [2 marks]

$7 - 3x - 2 = 5 - 3x$.

Answer: $5 - 3x$

5. Simplify $2(3y - 4) + 5(y + 1)$. [3 marks]

Expand: $6y - 8 + 5y + 5$.

Collect: $11y - 3$.

Answer: $11y - 3$

6. A rectangle is 6 cm high and $(x + 2)$ cm wide. Write its area without brackets. [3 marks]

$A = 6(x + 2) = 6x + 12$ cm^2.

Answer: $6x + 12$ cm^2