Expanding products

6 questions | 14 marks

Equivalent correct methods earn the corresponding marks.

1. Expand $5(x+3)$. [2 marks]

Multiply both terms by 5.

Answer: $5x+15$

2. Expand $-3(2a-7)$. [2 marks]

Compute $(-3)(2a)$ and $(-3)(-7)$.

Answer: $-6a+21$

3. Expand $2x(4x+5)$. [2 marks]

Multiply the coefficients and variable factors.

Answer: $8x^2+10x$

4. Expand and simplify $4(2y-1)-3(y+2)$. [2 marks]

$8y-4-3y-6$.

Collect the terms.

Answer: $5y-10$

5. A shop packs n identical trays. Each tray has $3a+2$ items. Another $4n$ loose items are added. Expand and simplify the total. [3 marks]

$n(3a+2)+4n=3an+2n+4n$.

Combine the n terms.

Answer: $3an+6n$

6. Expand $(2a+b)(c-3)$ without collecting unlike terms. [3 marks]

The four products are $2ac,\ -6a, bc,\ -3b$.

Answer: $2ac-6a+bc-3b$