Expanding two brackets

6 questions | 14 marks

Equivalent correct methods earn the corresponding marks.

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

$x^2+3x+2x+6=x^2+5x+6$.

Answer: x^2+5x+6

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

$x^2+x-4x-4=x^2-3x-4$.

Answer: x^2-3x-4

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

$x^2-2x-5x+10=x^2-7x+10$.

Answer: $x^2-7x+10$

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

$3x^2-3x+2x-2=3x^2-x-2$.

Answer: $3x^2-x-2$

5. A rectangle has sides $(x+2)$ cm and $(x+7)$ cm. Write its area as an expanded expression. [3 marks]

$A=(x+2)(x+7)=x^2+7x+2x+14$.

Answer: $(x^2+9x+14)$ cm^2

6. Sam says $(x+2)(x-2)=x^2-4x-4$. Correct the expansion and explain the middle term. [3 marks]

$x^2-2x+2x-4=x^2-4$.

The cross-products cancel because $-2x+2x=0$.

Answer: x^2-4