

Pairs of Brackets

When we multiply a pair of brackets **every** term in the first bracket is multiplied by **every** term in the second bracket.

$$\begin{aligned}(x + 2)(x + 3) &= x^2 + 3x + 2x + 6 \\ &= x^2 + 5x + 6\end{aligned}$$

Multiply FIRST TERMS

Multiply OUTSIDE TERMS

Multiply INSIDE TERMS

Multiply LAST TERMS

Remember FOIL

When a bracket contains more than 2 terms make sure that you multiply **every** term in the first bracket by **every** term in the second bracket. In the example below the 2 terms in the first bracket multiply by the 3 terms in the second bracket which gives 6 (2 x 3) terms in the expansion. This can be simplified to give 4 terms in the answer.

$$\begin{aligned}(x + 1)(x^2 - 4x + 2) &= x^3 - 4x^2 + 2x + x^2 - 4x + 2 \\ &= x^3 - 3x^2 - 2x + 2\end{aligned}$$

Pairs of Brackets Practice

http://www.cimt.plymouth.ac.uk/projects/mepres/book9/bk9i11/bk9_11i2.html

Practice collecting terms, expanding single brackets and pairs of brackets.

http://www.bbc.co.uk/bitesize/standard/maths_ii/algebra/removing_brackets/revision/1/

Revise expanding brackets and try the TESTBITE.

<http://www.supermathsworld.com/> Ask your teacher for the login details.

Select ALGEBRA from the menu. Select EXPANDING BRACKETS. Try on EASY, MEDIUM and HARD level.