# Expanding Brackets

### Motivation:

Stephen weighs 5kg less than I do and Max weighs 30kg more than me. Max weighs three times what Stephen weighs. How much do I weigh?

Give pupils 2-3 minutes to try to solve this.

Teacher demonstration of how this can be solved quickly using an equation, which requires us to expand brackets.

**Prior knowledge:**

To understand the use of the identity / equivalence symbol

**Check:**

Why do we use a different symbol in these two statements?

and

**Prior knowledge:**

To know how to represent multiplication using the area of a rectangle.

**Check:**

Represent the following using a rectangle.

Either Extension: Sequences problem

Or further practice:

### Intro:

Use a rectangle to show how you can multiply:

### Aims:

To link multiplication of numbers to multiplication of algebra

To use this to rewrite expressions without brackets

To know that this is called expanding the brackets

### Activities:

Class discussion and notes, including identity symbol and terminology

Examples

Quadratics A

Practice: section A

Extension: section B

**Prior knowledge:**

To multiply terms involving powers

**Check (mini whiteboards):**

Write down one answer at a time and think about how you would explain it to someone who doesn’t have the correct answer

### Aims:

To include powers when expanding brackets

### Activities:

Examples

Quadratics A practice: section C

Extension: section D

**Assessment:**

Expand the brackets in the following expressions