# Identities B (Collecting Like Terms)

**Prior knowledge:**

To know the words expression and equation and identity

**Check:**

Give examples on mini-whiteboards

### Aims:

To learn the meanings of the words term, coefficient and constant in algebra and to use this, alongside the words expression, equation and identity

### Activities:

Class discussion and notes around the following examples

Identify the type of object and list the terms, coefficients and constants involved.

Example:

Your turn:

Write one each of an expression, equation and identity.

Quizlet: <https://quizlet.com/_4wh9xa>

**Prior knowledge:**

To know that multiplication and addition are commutative.

**Check:**

What is the most efficient way to complete these calculations

1. 188 + 374 + 12
2. 4 × 82 × 25
3. 25 × (91 + 389 + 9) × 40

**Prior knowledge:**

To add and subtract negative numbers

To represent these calculations using positive and negative tiles and bars

### Check:

Complete the following calculations:

Draw a picture to represent each calculation.

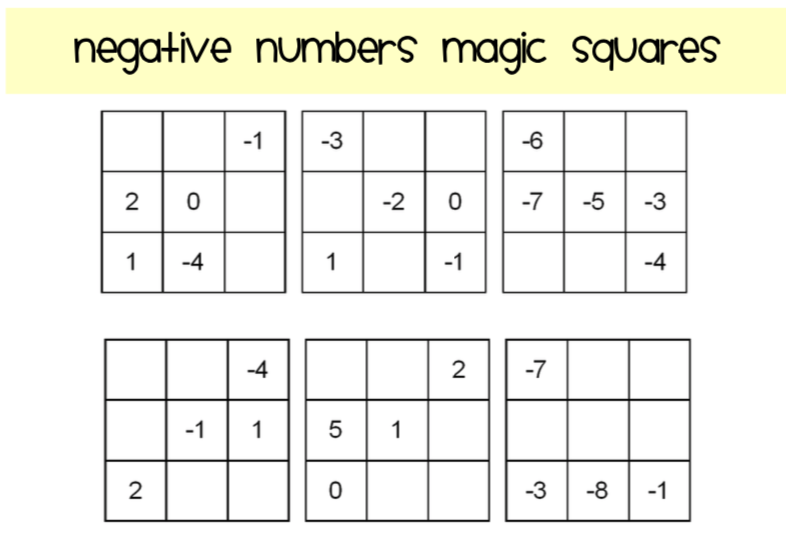
**Prior knowledge:**

To move terms around with their sign

**Check:**

What is the most efficient way to complete these calculations?

Extension:



### Prior Knowledge:

To know different ways of completing calculations involving multiple subtractions

### Activities:

Draw a picture to show how you would complete these in one step:

### Headache:

Substitute into the following expression:



**Aspirin:**

### Aims:

To explain why ‘like terms’ can be collected

### Activities:

Mini whiteboards. Calculation race:

Class discussion: who did this quickly? What was their strategy?

Optional Extension:

Worksheet: number tricks

### Aims:

To recognise like terms.

To understand why 1, and are not like terms.

To simplify expressions, formulae and equations by collecting like terms

**Activities:**

Class discussion and notes, around

Presentation: Identities B practice 1

### Aims:

To simplify expressions, formulae and equations by collecting like terms

**Activities:**

Examples

Simplify the expression

Simplify the equation

Worksheet: identities B practice 2

Extension at the end.

Substitute into the following expression:

Hint: collect like terms first.



**Assessment:**

Simplify the following:

**Extension:**

https://www.mathspad.co.uk/interactives/expressions/simplifyingExpressions.php