# Factorising

### Prior Knowledge

To expand brackets using the rectangle model.

### Activities:

Expand the following:

Look for a pattern in your previous answers.

### Prior Knowledge

To find the prime factorisation a number

### Activities:

Find the prime factorisation of:

### Prior Knowledge

To find the highest common factor of two algebraic expressions

### Activities:

Find the highest common factor of:

1. and
2. and
3. and
4. and
5. and

### Aim:

To find different factorisations of a number

### Activities:

Example:

30

Find different factorisations of:

12

20

38

100

### Aims:

To reverse the process of expanding brackets.

### Activities:

Examples not usually necessary.

Introduction: Factorising – section A

### Aims:

To know that many expressions can be factorised in several ways, and to understand which is the most complete, with reference to factorising numbers.

### Activities:

Example:

Discussion and annotations as to which is the most complete.

Further example if pupils need more help with indices.

Worksheet – reverse expanding brackets – Section B

### Aims:

To fully factorise expressions

### Activities:

Repeated factorisation vs. HCF (link to prime factorisation)

Examples:

Why is fully factorising the same as prime factorising?

Worksheet – reverse expanding brackets – Section C

### Aims:

To factorise expressions which require two sets of brackets.

### Activities:

Section D

Examples

Section E and F