

## ALGEBRAIC FRACTIONS

### LITERACY

The vowels are missing from these key words. Can you work out what they are?

FRCTN  
DNMNTR  
SMPLFY  
CMMN FCTR  
CNCL  
NMRTR

### RESEARCH

When were fractions first used?

### MEMORY

Remember when working with fractions it is important that you simplify your answers.

### STRETCH

1. Simplify the following expression.

$$\frac{8(x-3)^2}{4(x-3)}$$

(2 marks)

2. Solve the following equation.

$$\frac{2x-1}{4} + \frac{x-1}{5} = 2$$

(4 marks)

(EDEXCEL IGCSE)

### SKILL

1. Simplify the following algebraic fractions

a)  $\frac{2x+18}{36}$

b)  $\frac{4x^2+8x}{x}$

c)  $\frac{x^2+5x+6}{x+3}$

d)  $\frac{x^2+7x+12}{x+4} = \frac{1}{2}$

2. Solve the following equations.

a)  $\frac{4x}{3} = 12$

b)  $\frac{6x^2+12}{2} = 33$

c)  $\frac{2x^2+6x+5}{x+5} = 9$

d)  $\frac{x^2-25}{x+5} = \frac{2x^2+5x+2}{x+2}$

3. Solve the following equations.

a)  $\frac{x}{5} + \frac{2x}{10} = 16$

b)  $\frac{x}{3} \times \frac{2x}{3} = 2$

c)  $\frac{6x-6}{10} - \frac{2x-1}{10} = 1.5$

d)  $\frac{5x+3}{2} \div \frac{2x-2}{4} = 3$