

## Routine & Neutral

## Algebraic Fractions Expressions and Formulae 1,3

(a) Factorise fully

1

$$2x^2 - 18$$
.

(b) Simplify 
$$\frac{(2x+5)^2}{(2x-1)(2x+5)}.$$

Express  $\frac{5p^2}{8} \div \frac{p}{2}$  as a fraction in its simplest form.

2

**Express** 

$$\frac{2}{a} - \frac{3}{(a+4)}, \quad a \neq 0, \ a \neq -4,$$

3

as a single fraction in its simplest form.

Simplify

$$\frac{ab^6}{a^3b^2}.$$

4

Simplify

5

$$\frac{3x-15}{(x-5)^2}.$$

**Express** 

$$\frac{3}{x} - \frac{4}{x+1}, \qquad x \neq 0, \quad x \neq -1$$

6

as a single fraction in its simplest form.

7

Express

$$\frac{2}{x-1} + \frac{4}{x+2}$$
  $x \neq 1, x \neq -2$ 

as a single fraction in its simplest form.

8

**Express** 

$$\frac{s^2}{t} \times \frac{3t}{2s}$$

as a fraction in its simplest form.

9

Express as a single fraction

$$\frac{a}{b} + \frac{b}{a}$$
,  $a \neq 0$ ,  $b \neq 0$ .

10

Express as a single fraction in its simplest form

$$\frac{1}{p} + \frac{2}{(p+5)}$$