National 5 Mathematics

Algebraic Fractions - Questions

Marks are indicated in brackets after each question number

2014 Paper 2 Question 9, (3)

Express $\frac{7}{x+5}-\frac{3}{x}$ $x \neq -5,\ x \neq 0$ as a single fraction in its simplest form.

2015 Paper 1 Question 12, (3)

Simplify $\frac{x^2-4x}{x^2+x-20}$.

2016 Paper 2 Question 13, (3)

Express

$$\frac{3}{x-2}+\frac{5}{x+1}, \qquad x \neq 2, x \neq -1$$

as a single fraction in its simplest form.

2017 Paper 1 Question 11, (2)

Express $\frac{3}{a^2}-\frac{2}{a}$, $a \neq 0$, as a single fraction in its simplest form.

2017 Paper 2 Question 9, (1) (3)

(a) Factorise $4x^2-25$.

(b) Hence simplify $\frac{4x^2-25}{2x^2-x-10}$.

2018 Paper 2 Question 15, (3)

Express

$$\frac{n}{n^2-4} \div \frac{3}{n-2}, \quad n \neq -2, n \neq 2$$

as a single fraction in its simplest form.

2019 Paper 2 Question 15, (3)

Express

$$\frac{4}{x-2} - \frac{3}{x+5}, \quad x \neq 2, x \neq -5$$

as a single fraction in its simplest form.

2022 Paper 1 Question 12, (2)

Express $\frac{4}{x+2} \div \frac{5}{(x+2)^2}$, $x \neq -2$ as a single fraction in its simplest form.

2022 Paper 2 Question 12, (3)

Simplify $\frac{2ab+6a}{b^2-9}$.

2023 Paper 2 Question 10, (3)

Express

$$\frac{7}{x-3} - \frac{2}{x}, \quad x \neq 3, x \neq 0$$

as a single fraction in its simplest form.

2023 Paper 2 Question 12, (3)

Simplify $\dfrac{x^2-16}{x^2+x-20}$.