



National 5 Mathematics

Algebraic Operations - Questions

Marks are indicated in brackets after each question number

2014 Paper 1 Question 2, (2)

Multiply out the brackets and collect like terms:

$$(2x - 5)(3x + 1).$$

2015 Paper 1 Question 4, (3)

Multiply out the brackets and collect like terms

$$(x - 4)(x^2 + x - 2).$$

2016 Paper 2 Question 4, (2)

Factorise fully $3x^2 - 48$.

2017 Paper 1 Question 4, (3)

Expand and simplify $(2x + 3)(x^2 - 4x + 1)$.

2017 Paper 1 Question 8, (1) (3)

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

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



2018 Paper 1 Question 2, (3)

Expand and simplify $(3x+1)(x-1)+2(x^2-5)$.

2019 Paper 1 Question 3, (3)

Expand and simplify $(x+5)(2x^2-7x-3)$.

2022 Paper 2 Question 1, (3)

Expand and simplify $(3x-2)(2x^2+5x-1)$.

2023 Paper 1 Question 2, (3)

Expand and simplify $(x+7)^2+6(x^2-10)$.

2024 Paper 1 Question 3, (3)

Expand and simplify $(x+1)(x^2-4x+5)$.

2025 Paper 1 Question 2, (3)

Expand and simplify $(x+3)(x+5)+4(x-2)$.

2025 Paper 2 Question 5, (2)

Express $x^2+10x+19$ in the form $(x+a)^2+b$.