National 5 Mathematics

Surds - Questions

Marks are indicated in brackets after each question number

2014 Paper 1 Question 8, (3)

Express $\sqrt{40} + 4\sqrt{10} + \sqrt{90}$ as a surd in its simplest form.

2015 Paper 1 Question 13, (3)

Express $\dfrac{4}{\sqrt{8}}$ with a rational denominator.

Give your answer in its simplest form.

2016 Paper 1 Question 9, (2)

The function $f(x)$ is defined by $f(x) = \dfrac{2}{\sqrt{x}}$, $x > 0$.

Express $f(5)$ as a fraction with a rational denominator.

2018 Paper 1 Question 11, (2)

Express $\dfrac{9}{\sqrt{6}}$ with a rational denominator.

Give your answer in its simplest form.

2019 Paper 1 Question 12, (3)

Express $\dfrac{\sqrt{2}}{\sqrt{40}}$ as a fraction with a rational denominator.

Give your answer in its simplest form.

2022 Paper 1 Question 13, (3)

Expand and simplify $\sqrt{10}\left(\sqrt{10}-\sqrt{2}\right)+8\sqrt{5}$.

2023 Paper 1 Question 8, (2)

Express $\dfrac{12}{\sqrt{15}}$ with a rational denominator.

Give your answer in its simplest form.

2024 Paper 1 Question 6, (2)

Simplify $\sqrt{75}-\sqrt{3}$.

2025 Paper 1 Question 12, (2)

Express $\dfrac{6}{\sqrt{10}}$ with a rational denominator.

Give your answer in its simplest form.