

Maths.scot



National 5 Maths

Rationalising the Denominator

SQA past paper and specimen paper questions and answers by topic

SQA material is copyright © Scottish Qualifications Authority
and has been reproduced by kind permission of SQA.

This resource is free to distribute and use on a non-commercial basis.

Visit [Maths.scot](https://www.maths.scot) for full worked solutions to each of these questions.



National 5 Maths
SQA 2013 Specimen
Paper 1 Question 5

Express $\frac{4}{\sqrt{6}}$ with a rational denominator in its simplest form.

2

Answer:

$$\frac{2\sqrt{6}}{3}$$

National 5 Maths
SQA 2015 Paper 1
Question 13

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

Give your answer in its simplest form.

3

Answer:

$$\sqrt{2}$$

National 5 Maths
SQA 2016 Paper 1
Question 9

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

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

2

Answer:

$$\frac{2\sqrt{5}}{5}$$

National 5 Maths
SQA 2018 Paper 1
Question 11

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

Give your answer in its simplest form.

2

Answer:

$$\frac{3\sqrt{6}}{2}$$

National 5 Maths
SQA 2019 Paper 1
Question 12

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

Give your answer in its simplest form.

3

Answer:

$$\frac{\sqrt{5}}{10}$$

National 5 Maths
SQA 2023 Paper 1
Question 8

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

Give your answer in its simplest form.

2

Answer:

$$\frac{4\sqrt{15}}{5}$$