



National 5 Maths Trigonometric Identities

SQA past paper and specimen paper
questions and answers by topic

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



**National 5 Maths
SQA 2016 Paper 1
Question 11**

Simplify

$$\tan^2 x^\circ \cos^2 x^\circ .$$

Show your working.

2

Answer:

$$\sin^2 x$$

**National 5 Maths
SQA 2018 Paper 1
Question 18**

Express $\sin x^\circ \cos x^\circ \tan x^\circ$ in its simplest form.

Show your working.

2

Answer:

$$\sin^2 x$$

**National 5 Maths
SQA 2019 Paper 2
Question 17**

Expand and simplify

$$(\sin x^\circ + \cos x^\circ)^2.$$

Show your working.

2

Answer:

$$1 + 2 \sin x \cos x$$

National 5 Maths
SQA 2021 Paper 2
Question 16

Expand and simplify

$$\cos x^\circ (\tan x^\circ + 1).$$

2

Show your working.

Answer:

$$\sin x + \cos x$$

National 5 Maths
SQA 2022 Paper 2
Question 13

Simplify $\frac{\sin x^\circ + 2 \cos x^\circ}{\cos x^\circ}$.

2

Answer:

$\tan x + 2$

National 5 Maths
SQA 2023 Paper 2
Question 13

Simplify $2\sin^2 x^\circ + 2\cos^2 x^\circ$.

Show your working.

2

Answer:

2

National 5 Maths
SQA 2024 Paper 2
Question 16

Express $3\cos^2 x^\circ - 1$ in the form $a + b\sin^2 x^\circ$.

Show your working.

2

Answer:

$$2 - 3\sin^2 x$$