MATHS STANDARD YEAR 11 - MODULE 2 - LESSON 4

Introduction to Trigonometry

Use this worksheet after reading the lesson to practise the key ideas and prove you can meet the success criteria.

Name _____

Date _____

Class _____

1. Key Ideas

Label the triangle, select the ratio, solve the equation. Three steps. Every trigonometry problem in this course follows this pattern.

- The three trig ratios — sine, cosine, tangent — and their abbreviations
- Why the ratio of two sides depends only on the angle, not the triangle's size

2. Success Criteria

By the end, you should be able to:

- The three trig ratios — sine, cosine, tangent — and their abbreviations
- The SOHCAHTOA memory device
- How to use $\sin^{-1}$, $\cos^{-1}$, $\tan^{-1}$ on a calculator

3. Key Terms

Key idea
The central concept from Introduction to Trigonometry.

Evidence
Information, observations or calculations used to support an answer.

Explain
Give a reasoned answer that links cause and effect.

Apply
Use a learned idea in a new example, problem or scenario.

4. Activity: Build the Lesson Map

Use the lesson to complete the table. Keep answers brief but specific.

Prompt	Your answer
Main concept	
Important example	
Common mistake to avoid	
How this links to the next lesson	

5. Short Answer Questions

1. Explain this lesson goal in your own words: "The three trig ratios — sine, cosine, tangent — and their abbreviations". Use one specific example from the lesson.

BAND 3 2 MARKS

2. Apply this idea to a new example: "The SOHCAHTOA memory device". Show your reasoning clearly.

BAND 4 3 MARKS

3. Analyse why this idea matters for understanding Introduction to Trigonometry: "How to use $\sin^{-1}$, $\cos^{-1}$, $\tan^{-1}$ on a calculator".

BAND 5 4 MARKS

6. Extend: Apply the Idea

BAND 5/6 5 MARKS

A student gives a memorised answer about Introduction to Trigonometry but does not use evidence or reasoning.

Improve the answer by writing a stronger response that uses accurate terminology, a relevant example and a clear explanation.

7. Multiple Choice

1. What is the best first step when answering a question about Introduction to Trigonometry?

☐ A. Identify the key concept being tested

☐ B. Write every fact from memory

☐ C. Ignore the command word

☐ D. Skip examples and evidence

2. Which answer would show stronger understanding of Introduction to Trigonometry?

☐ A. An answer with accurate terms and reasoning

☐ B. A copied definition only

☐ C. A single-word response

☐ D. An answer with no example

3. What should you do if a question asks you to explain?

☐ A. Link the idea to a reason or cause

☐ B. List unrelated facts

☐ C. Only draw a diagram

☐ D. Write the shortest possible answer

8. Success Criteria Proof

Finish with evidence that you can do each success criterion.

SUCCESS CRITERION 1

Prove that you can: The three trig ratios — sine, cosine, tangent — and their abbreviations

BAND 3 2 MARKS

SUCCESS CRITERION 2

Prove that you can: The SOHCAHTOA memory device

BAND 4 3 MARKS

SUCCESS CRITERION 3

Prove that you can: How to use $\sin^{-1}$, $\cos^{-1}$, $\tan^{-1}$ on a calculator

BAND 5 4 MARKS

One thing I still need help with: