



Task Number	2	Task Name	Trigonometric Identity Posters
Course	Mathematics Extension 1	Faculty	Mathematics
Teacher	Mr Whitehall	Head Teacher	Mrs Humphrys
Issue date	Term 2, Week 5	Due date	Thursday 12/06/25 (In Class)
Focus (Topic)	Further Trigonometric Functions	Task Weighting	30%

Outcomes

ME11-1	uses algebraic and graphical concepts in the modelling and solving of problems involving functions and their inverses
ME11-2	manipulates algebraic expressions and graphical functions to solve problems
ME11-3	applies concepts and techniques of inverse trigonometric functions and simplifying expressions involving compound angles in the solution of problems

Task description

Students will create an A3 poster that presents a complete proof of a given trigonometric identity. This task aims to enhance understanding of trigonometric identities and their proofs while reinforcing connections to prior learning in mathematics.

Task Requirements:

1. Trigonometric Identity:
 - Students will be provided with a specific trigonometric identity to prove in class.
2. Poster Content:
 - The poster must clearly display the full proof of the trigonometric identity, detailing each step of the proof.
 - Annotations must accompany each step, explaining the reasoning and mathematical concepts used. These annotations should link back to prior learning (e.g., previous trigonometric identities, algebraic manipulation, or geometric interpretations).

3. Visual Aids:

- Include visual representations or diagrams that illustrate the process of the proof. This could involve graphs of the functions, unit circle representations, or other relevant visual tools that aid in understanding the identity.

4. Presentation:

- The poster should be visually appealing, organised, and easy to follow.
- Use appropriate mathematical notation and terminology throughout the poster.

5. Submission:

- Posters will be displayed in class for peer review and discussion. Ensure your name is clearly indicated on the backside of the poster.

Assessment Criteria:

- Completeness and accuracy of the trigonometric identity proof.
- Clarity and relevance of annotations linking to prior learning.
- Quality and effectiveness of visual aids in supporting the proof.
- Overall presentation and organisation of the poster.

Marking Guidelines

Marks are assigned per question. Ensure to show all working out.

Criteria	A (Excellent)	B (Good)	C (Satisfactory)	D (Needs Improvement)	E (Unsatisfactory)
Completeness and Accuracy of Proof	The proof is complete and accurately demonstrates the trigonometric identity with all necessary steps clearly shown.	The proof is mostly complete and demonstrates the identity with minor inaccuracies in steps or reasoning.	The proof is somewhat complete but lacks clarity or contains several inaccuracies.	The proof is incomplete, showing only basic steps or reasoning that is often incorrect.	The proof is missing or fails to address the trigonometric identity.
Clarity and Relevance of Annotations	Annotations are clear, insightful, and effectively link all steps to prior learning, enhancing understanding.	Annotations are mostly clear and relevant, linking most steps to prior learning with minor gaps.	Annotations are present but may lack clarity or relevance to prior learning, showing limited connections.	Annotations are unclear or irrelevant, with little to no connection to prior learning.	Annotations are missing or do not contribute to understanding the proof.

Quality and Effectiveness of Visual Aids	Visual aids are highly effective, clearly illustrating each step of the proof and enhancing overall understanding.	Visual aids are good, supporting most steps of the proof but may lack detail or clarity in some areas.	Visual aids are present but may not effectively support the proof or lack clarity.	Visual aids are poorly presented, providing minimal support to the proof.	Visual aids are missing or do not relate to the proof in any meaningful way.
Overall Presentation and Organisation	The poster is exceptionally well-organised, visually appealing, and easy to follow, making excellent use of space and design.	The poster is generally well-organised and visually appealing, with minor issues in layout or design.	The poster is somewhat organised but may be cluttered or difficult to follow in parts.	The poster is poorly organised, making it hard to follow, with significant layout issues.	The poster is disorganised and visually unappealing, hindering understanding.

Total Marks: /20