



Task Number	1	Task Name	Right-Angled Triangles Open Book In-Class Test
Course	HSC Standard 1 Mathematics	Faculty	Mathematics
Teacher	Broadley	Head Teacher	Humphrys
Issue date	12th November 2024	Due date	26th November 2023
Focus (Topic)	Right-Angled Triangles	Task Weighting	30%

Outcomes

MS1-12-3 A student interprets the results of measurements and calculations and makes judgements about their reasonableness

MS1-12-4 A student analyses simple two-dimensional and three-dimensional models to solve practical problems

MS1-12-9 A student chooses and uses appropriate technology effectively and recognises appropriate times for such use

MS1-12-10 A student uses mathematical argument and reasoning to evaluate conclusions, communicating a position clearly to others

Task description

This task requires students to complete an open book in-class examination. The **Open Book In-Class Test** will be on **Right-Angled Triangles**. The in-class exam will be undertaken in the timetabled lesson on **Tuesday the 26th November**. Students may bring their class workbooks and textbooks into the exam.

ASSESSMENT CRITERIA

Students will be assessed on their ability to:

Right-Angled Triangles: Chapter 9 & 11

1. Apply Pythagoras theorem to solve practical problems in two dimensions
2. Use the trigonometric ratios (sin, cos, tan) for right-angled triangles
3. Working with angles correct to the nearest degree and/or minute
4. Solving practical problems involving right-angled triangles
5. Finding the length of an unknown side
6. Finding the size of an unknown angle
7. Solving practical problems involving angles of elevation and depression
8. Compass and true bearings

Marking Guidelines

Outstanding:

Demonstrates an extensive knowledge and understanding of content

Demonstrates a very high level of competence in processes and skills

Can apply knowledge and skills to new situations

- *Selects and uses efficient strategies to accurately solve unfamiliar multi-step problems*
- *Uses deductive reasoning in presenting clear and concise arguments*
- *Consistently uses appropriate subject specific language and notations in written, oral and/or graphical form*
- *Synthesises subject specific techniques, results and ideas across an entire course*

High:

Demonstrates a thorough knowledge and understanding of content

Demonstrates a high level of competence in processes and skills

Can apply knowledge and skills in most situations

- *Selects and uses appropriate strategies to solve familiar, and some unfamiliar, multi-step problems*
- *Uses appropriate subject specific language and notations in written, oral and/ or graphical form*
- *Uses formal definitions when explaining solutions*
- *Uses appropriate subject specific arguments to reach and justify conclusions May require guidance to determine the most efficient methods*
- **May** require guidance to determine the most efficient methods

Sound:

Demonstrates a sound knowledge and understanding of the main areas of content

Demonstrates an adequate level of competence in processes and skills

- *Uses appropriate strategies to solve familiar multi-step problems*
- *Uses appropriate subject specific language, notations and diagrams*
- *Uses appropriate subject specific arguments to reach conclusions*
- **May** use appropriate subject specific arguments to reach and justify conclusions

Basic:

Demonstrates a basic knowledge and understanding of the main areas of content

Demonstrates a limited level of competence in processes and skills

- *Uses standard procedures to solve simple familiar problems*
- **May** select and use standard procedures to solve simple familiar problems
- *May explain and verify simple cross topic relationships*
- *Communicates ideas using some subject specific language*
- **May** identify the strengths/ weaknesses of a particular strategy

Limited:

- Demonstrates an elementary knowledge and understanding in few areas of content
- Demonstrates a very limited level of competence in some processes and skills
- Uses **with guidance** standard procedures to solve simple familiar problems

Parental notification:

- Late submission - no misadventure
- Assessment not submitted