

Criterion A: knowledge and understanding

Where is the Geometry

Knowledge and understanding are fundamental to studying mathematics and form the base from which to explore concepts and develop skills. This criterion expects students to use their knowledge and to demonstrate their understanding of the concepts and skills of the prescribed framework in order to make deductions and solve problems in different situations, including those in real-life contexts.

This criterion examines to what extent the student is able to:

- know and demonstrate understanding of the concepts from the five branches of mathematics (number, algebra, geometry and trigonometry, statistics and probability, and discrete mathematics)
- concepts and skills to solve problems in both familiar and unfamiliar situations, including those in real-life contexts
- select and apply general rules correctly to solve problems, including those in real-life contexts.

Achievement level	Descriptor
0	The student does not reach a standard described by any of the descriptors given below
1 – 2	The student attempts to make deductions when solving simple problems in familiar contexts. <i>Indicators</i> 1. Includes 1 picture of a piece of architecture 2. Correctly identifies at least 70% of the vocabulary.
3 – 4	The student sometimes makes appropriate deductions when solving simple and more-complex problems in familiar contexts. <i>Indicators:</i> 1. Includes 1 picture of a piece of architecture 2. Correctly identifies at least 77% of the vocabulary
5 – 6	The student generally makes appropriate deductions when solving challenging problems in a variety of familiar contexts. <i>Indicators:</i> 1. Includes 1 picture of a piece of architecture 2. Correctly identifies at least 85% of the vocabulary
7 – 8	The student consistently makes appropriate deductions when solving challenging problems in a variety of contexts including unfamiliar situations. <i>Indicators:</i> 1. Includes 1 picture of a piece of architecture 2. Correctly identifies at least 93% of the vocabulary

Criterion C: communication in mathematics

Where is the Geometry?

Maximum 6

Students are expected to use mathematical language when communicating mathematical ideas, reasoning and findings—both orally and in writing.

This criterion examines to what extent the student is able to:

- use appropriate mathematical language (notation, symbols, terminology) in both oral and written explanations
- move between different forms of representation.

Assessment tasks for this criterion are likely to be real-life problems, tests, examinations and investigations. Tests and examinations that are to be assessed against criterion C must be designed to allow students to show complete lines of reasoning using mathematical language.

Achievement level	Descriptor
0	The student does not reach a standard described by any of the descriptors given below
1 – 2	The student shows basic use of mathematical language and/or forms of mathematical representation. The lines of reasoning are difficult to follow . <i>Indicators:</i> <ol style="list-style-type: none"> 1. Attempts to describe all pictures and most terms. 2. Attempts to use symbols most of the time, with some accuracy.
3 – 4	The student shows sufficient use of mathematical language and forms of mathematical representation. The lines of reasoning are clear though not always logical or complete . The student moves between different forms of representation with some success . <i>Indicators:</i> <ol style="list-style-type: none"> 1. Detailed descriptions of most pictures and terms. 2. Accurate use of symbols most of the time.
5 – 6	The student shows good use of mathematical language and forms of mathematical representation. The lines of reasoning are concise, logical and complete . The student moves effectively between different forms of representation. <i>Indicators:</i> <ol style="list-style-type: none"> 1. Clear, detailed descriptions of all pictures and terms. 2. Accurate use of symbols all of the time

Notes

1. Mathematical language: the use of notation, symbols, terminology and verbal explanations.
2. Forms of mathematical representation: refers to formulae, diagrams, tables, charts, graphs and models, used to represent mathematical information.