

Example 14: Spherical Geometry

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Assessment

Criterion	A	B	C	D	E (SL)	E (HL)	Total (SL)	Total (HL)
Achievement level awarded	2	3	3	2	6	4	16	14
Maximum possible achievement level	4	3	4	3	6	6	20	20



[Student work \(PDF\)](#)



[Annotated student work \(PDF\)](#)



[Comments](#)

Comments

Criterion A: Communication

A2—The work shows some coherence but lacks an aim and rationale. It is important for students to define a clear focus and / or question for their exploration. Labelling of diagrams is important. Penalized here and not in criterion B.

Criterion B: Mathematical presentation

B3—Representing spherical geometry is a challenge. The student's diagrams and photographs are good examples of appropriate mathematical presentations.

Criterion C: Personal engagement

C3—The student engaged with unfamiliar mathematics and generated his / her examples. The student made the work their own by practically examining their results on a basketball. This is evidenced in the photographs and calculations included in the exploration.

Criterion D: Reflection

D2—Reflection is done throughout the exploration. The examination of error boundaries is a good example of meaningful reflection. The conclusion includes reflection but it is not critical.

SL Criterion E: Use of mathematics

E6—The mathematics is commensurate with the level of the course despite not being on the syllabus. Thorough knowledge and understanding is demonstrated.

HL Criterion E: Use of mathematics

E4—The mathematics is commensurate with the level of the course despite not being on the syllabus. It is correct and sophisticated but lacks a degree of rigour and precision.



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