

Example 22: Titus tunnel bridge

Subject: Mathematics: analysis and approaches and mathematics: applications and interpretation.

Paper component: Internal assessment, standard level (SL) and higher level (HL)

Assessment

Criterion	A	B	C	D	E (SL)	E (HL)	Total (SL)	Total (HL)
Achievement level awarded	4	3	3	3	6	5	19	18
Maximum possible achievement level	4	4	3	3	6	6	20	20

Comments

Criterion	Comments
A Presentation	Good logical development of the exploration with clear aim that is met. The context of exploration is included. Clear and concise explanations. The length of the exploration was not penalized due to its completeness.
B Mathematical communication	Key terms and variables explicitly defined. Appropriate and varied forms of mathematical representation. Consistent notation mostly but an accumulation of minor slips was enough to not give 4, for instance, missing degrees, duplicated point labels, etc.
C Personal engagement	Thorough research. Interesting comparison of methods. Good use of software. Original ideas. Explores from various perspectives.
D Reflection	Discusses reasons for construction method.
E Use of mathematics SL	The mathematics was fully understood. The occasional slip does not affect the overall accuracy. Applied in different contexts. Links to different areas of mathematics.
E Use of mathematics HL	Not precise but does demonstrate some sophistication and rigour. Clear links were made between areas of mathematics.
General comments	This is a thorough piece. Reasons could be found for mark reductions in each criterion but the overall feel is that nothing is sufficient to reduce the exploration from a 19 at standard level and an 18 at higher level.