

Example 45: Radii of curvature

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	3	3	3	3	6	5	18	17
Maximum possible achievement level	4	4	3	3	6	6	20	20

Comments

Criterion	Comments
A Presentation	The exploration reads well but does not always address the target audience (an average HL student). Some parts need to be re-read in order to understand what the candidate is trying to say. Awarding A2 is too harsh and A4 is too generous. Best fit was used to award A3.
B Mathematical communication	The candidate used many forms of appropriate mathematical communication but not consistently. For example, some graphs are not very clear. Some other notational errors were noted on the work.
C Personal engagement	The candidate demonstrates authentic personal engagement by investigating a real-life situation, with the candidate showing initiative and self-driven inquiry.
D Reflection	There is plenty of meaningful and critical reflection throughout the work. Review, analysis and evaluation of work done is thorough. The lack of goodness of fit (GOF) analysis is penalized in criterion E as a lack of rigour. A double penalty is therefore avoided.
E Use of mathematics SL	
E Use of mathematics HL	The mathematics used is relevant and in parts beyond the curriculum content. The candidate demonstrates thorough understanding of the work undertaken, but as stated above there is a lack of rigour through the lack of analytic GOF methods. The work is sophisticated.
General comments	