

Example 40: Radioactive modelling

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	The work was logically developed and clearly expressed. There is a balance between giving a level of detail needed to follow the calculations and giving too much. Though it could be argued this work was repetitive in places it was felt that overall, given the amount of ground covered and the different cases considered, it could still be regarded as concise.
B Mathematical communication	The communication was generally very good but the few minor errors did impede the mathematical communication.
C Personal engagement	There was plenty of evidence of creative and independent thinking. There was also plenty of research done and the work went well beyond what you would normally see for an internal assessment on this topic.
D Reflection	There was substantial evidence of critical thinking, both in terms of the context and the mathematical methods used.
E Use of mathematics SL	The mathematics is correct and the candidate displays thorough understanding of the work, even when the work is beyond the SL syllabus.
E Use of mathematics HL	Though the mathematics used was not complex it was commensurate with the course and was used in a sophisticated way. There were occasional lapses in rigour, but generally thorough understanding was shown.
General comments	