

## Example 49: How can we make it better?

**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	2	5	4	16	15
Maximum possible achievement level	4	4	3	3	6	6	20	20

### Comments

Criterion	Comments
A Presentation	The exploration has repetitive explanations and also repetitive calculations. In general, the exploration is coherent and well organized but not concise.
B Mathematical communication	The approximation symbol is missing throughout when final values are estimated. Otherwise, mathematical communication is relevant, appropriate and mostly consistent.
C Personal engagement	The teacher mark was confirmed. Although the mathematics is not too challenging and this is a common topic for an exploration, the candidate engaged well with the topic, produced hypothetical designs for cans and chose one of them, giving good reasons for that choice.
D Reflection	Best fit models were done using visual analysis rather than empirical quantitative analysis. There is evidence of limited reflection with some meaningful reflection in the conclusion. "Best fit" was used to confirm D2.
E Use of mathematics SL	
E Use of mathematics HL	The mathematics used is relevant and commensurate with the course. There was an error throughout where the candidate used circumference rather than area for the top and bottom of a can. Apart from this error the mathematics is correct, and the candidate demonstrated good knowledge and understanding. "Best fit" was used to confirm the teacher's mark.
General comments	If candidates submit a completed exploration as a draft, such errors would be picked up by the teacher who could then ask them to review that particular part of the exploration.