

Example 13: Monty Hall Problem

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Assessment

Criterion	A	B	C	D	E (SL)	E (HL)	Total (SL)	Total (HL)
Achievement level awarded	3	1	3	1	5	3	13	11
Maximum possible achievement level	4	3	4	3	6	6	20	20



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



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



[Comments](#)

Comments

Criterion A: Communication

A3—The exploration is complete and well organized but lacks some coherence.

Criterion B: Mathematical presentation

B1—Key terms like the law of total probability is not defined. Many examples of notation that is confusing or ill-defined.

Criterion C: Personal engagement

C3—There is significant evidence of personal engagement especially when using Geogebra to simulate the problem. The student appears to have made the exploration their own and explored variations of the Monty Hall Problem.

Criterion D: Reflection

D1—The student attempts to reflect on his / her work by comparing results from simulation with the theoretical model. This however is superficial and not meaningful.

SL Criterion E: Use of mathematics

E5—Relevant mathematics commensurate with the level of the course is used. The mathematics is mostly correct and a good attempt was made to develop alternate games demonstrating good knowledge and understanding.

HL Criterion E: Use of mathematics

E3—Relevant mathematics commensurate with the level of the course is used. The mathematics is mostly correct and a good attempt was made to develop alternate games demonstrating good knowledge and understanding, however the work lacked the sophistication to achieve the higher level in this criterion.



