

Example 12: Horse Jumping

General guidance

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Assessed student work

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Assessment

Criterion	A	B	C	D	E (SL)	E (HL)	Total (SL)	Total (HL)
Achievement level awarded	3	2	4	1	5	2	15	12
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—Coherent and well organized, however some of the information is not focused on the problem in hand and more complete explanation of results would have led to the top attainment level..

Criterion B: Mathematical presentation

B2—Excellent sourcing of pictures at point of reference and a complete bibliography is given. Good use of photographs to generate parabolas for the development of the mode, however, the mathematics itself was not well presented and not all variables were explicitly defined. Graphs need to be labelled and units should be used for a real world problem such as this.

Criterion C: Personal engagement

C4—The work contained an abundance of personal engagement. The student showed initiative in using still photographs to plot curves. The interest of the student in the topic studied is evident throughout.

Criterion D: Reflection

D1—The student reflects on a regular basis, however this is either limited or superficial. The significance of the results in a real life context is not explored in any depth.

SL Criterion E: Use of mathematics

E5—Relevant mathematics is used to find the equation of a parabola, it is mostly correct and good knowledge and understanding is demonstrated.

HL Criterion E: Use of mathematics

E2—Plotting a parabola to a set of points is correct, however in the context of the problem this does not lead to a meaningful solution. The student starts to comment on



the angle of attack but does not explore this concept, since this is effectively a projectile motion problem.

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