

# Internal assessment criteria

# Standard Level IB Math Exploration Rubric

	<b>A: Communication (4)</b> This criterion assesses the organization and coherence of the exploration. A well-organized exploration includes an introduction, has a rationale (which includes explaining why this topic was chosen), describes the aim of the exploration and has a conclusion. A coherent exploration is logically developed and easy to follow.  <i>Graphs, tables and diagrams should accompany the work in the appropriate place and not be attached as appendices to the document.</i>	<b>B: Mathematical presentation (3)</b> • use appropriate mathematical language (notation, symbols, terminology) • define key terms, where required • use multiple forms of mathematical representation, such as formulae, diagrams, tables, charts, graphs and models, where appropriate.  <i>Students are expected to use mathematical language when communicating mathematical ideas, reasoning and findings. Students are encouraged to choose and use appropriate ICT tools such as graphic display calculators, screen shots, graphing, spreadsheets, databases, drawing and word-processing software, as appropriate, to enhance mathematical communication.</i>	<b>C: Personal engagement (4)</b> This criterion assesses the extent to which the student engages with the exploration and makes it their own. Personal engagement may be recognized in different attributes and skills. These include thinking independently and/or creatively, addressing personal interest and presenting mathematical ideas in their own way.	<b>D: Reflection (3)</b> This criterion assesses how the student reviews, analyses and evaluates the exploration. Although reflection may be seen in the conclusion to the exploration, it may also be found throughout the exploration.	<b>E: Use of mathematics (6)</b> This criterion assesses to what extent students use mathematics in the exploration.  <i>Students are expected to produce work that is commensurate with the level of the course. The mathematics explored should either be part of the syllabus, or at a similar level or beyond. It should not be completely based on mathematics listed in the prior learning. If the level of mathematics is not commensurate with the level of the course, a maximum of two marks can be awarded for this criterion. The mathematics can be regarded as correct even if there are occasional minor errors as long as they do not detract from the flow of the mathematics or lead to an unreasonable outcome.</i>
<b>0</b>	The exploration <b>does not reach the standard</b> described by the descriptors below.	The exploration <b>does not reach the standard</b> described by the descriptors below.	The exploration <b>does not reach the standard</b> described by the descriptors below.	The exploration <b>does not reach the standard</b> described by the descriptors below.	The exploration <b>does not reach the standard</b> described by the descriptors below.
<b>1</b>	The exploration has <b>some coherence</b> .	There is <b>some appropriate</b> mathematical presentation.	There is evidence of <b>limited</b> or <b>superficial</b> personal engagement.	There is evidence of <b>limited</b> or <b>superficial</b> reflection.	<b>Some relevant</b> mathematics is used.
<b>2</b>	The exploration has <b>some coherence</b> and shows <b>some organization</b> .	The mathematical presentation is <b>mostly appropriate</b> .	There is <b>evidence of some</b> personal engagement.	There is evidence of <b>meaningful</b> reflection.	<b>Some relevant</b> mathematics is used. <b>Limited understanding</b> is demonstrated.
<b>3</b>	The exploration is <b>coherent</b> and <b>well organized</b> .	The mathematical presentation is <b>appropriate throughout</b> .	There is <b>evidence of significant</b> personal engagement.	There is <b>substantial</b> evidence of critical reflection.	<b>Relevant mathematics</b> commensurate with the level of the course is used. <b>Limited understanding</b> is demonstrated.
<b>4</b>	The exploration is <b>coherent, well organized, concise</b> and <b>complete</b> .		There is <b>abundant evidence</b> of <b>outstanding</b> personal engagement.		<b>Relevant mathematics</b> commensurate with the level of the course is used. The mathematics explored is <b>partially correct</b> . <b>Some knowledge</b> and <b>understanding</b> are demonstrated.
<b>5</b>					<b>Relevant mathematics</b> commensurate with the level of the course is used. The mathematics explored is <b>mostly correct</b> . <b>Good knowledge</b> and <b>understanding</b> are demonstrated.
<b>6</b>					<b>Relevant mathematics</b> commensurate with the level of the course is used. The mathematics explored is <b>correct</b> . <b>Thorough knowledge</b> and <b>understanding</b> are demonstrated.