**1st Draft Directions**

**Peer Feedback Checklist**

Bring your draft to class on your assigned Group Day for the Peer Feedback Checklist (PFC).

A classmate will read your draft and complete the checklist.

Staple the PFC to the front of the draft that was peer-evaluated.

Revise your paper using your classmate’s feedback.

**Self-Evaluation**

Evaluate your first draft using the Exploration Rubric. Write a brief **comment** on your mark next to each criterion.

**Next Steps**

Add another page at the end of your draft and briefly indicate what you plan to do to improve your exploration for the final draft.

**Printed Copy**

Make sure that your draft is in 12 point Times New Roman, is double spaced, has 1 inch margins, is printed on only one side, and has a cover page that includes your name, period, teacher name, and title of your paper. The length of your paper should be 8 – 12 pages, not including cover page and bibliography.

**How to turn in your 1st Draft**

Use a binder clip and include the following items in the following order:

* The print-out of your newest draft
* Next Steps should be the last page of the newest draft
* The Rubric with your marks and comments
* Your peer-evaluated draft with the PFC

IB MATH SL IA 1st Draft Peer Feedback Checklist

**Communication & Mathematical presentation**

⎕ Did you start with an introduction?

⎕ Do you have a clearly written aim and rationale?

⎕ Does the entire paper focus on the aim and avoid irrelevance? Don’t go off on a tangent.

⎕ Does the writing flow nicely?

⎕ Is your exploration coherent? (logically organized, understandable, having clarity)

⎕ Did you include graphs, tables and diagrams at appropriate places and not attach them all at the end?

⎕ Have you had someone (not a student in Math SL) edit your paper?

⎕ Did you cite all references in your bibliography and acknowledge direct quotes appropriately?

⎕ Did you use appropriate mathematical language and representation? (No computer notation \*, ^, etc)

⎕ Did you define key terms where necessary?

⎕ Did you use appropriate technology?

⎕ Did you think about the degree of accuracy? (For your topic, how many decimal places are relevant?)

⎕ Did you end with a conclusion and relate it back to your aim and rationale?

⎕ Do you have page numbers?

⎕ Did you use 12 point Times New Roman, double-space, one inch margins, print on one side, and include a cover page?

**Use of mathematics**

⎕ Did you explore unfamiliar math, or apply familiar math to a new situation?

⎕ Did you create mathematical models for real-world situations, if this applied to your topic?

⎕ Did you apply problem-solving techniques?

⎕ Did you look for and explain patterns, if this applied to your topic?

⎕ Did you show how your math is relevant to your topic?

⎕ Did you provide evidence of your analytical process (e.g., sample calculations)?

**Reflection**

⎕ Did you ask questions, make conjectures and investigate mathematical ideas?

⎕ Did you consider the historical and global perspectives of your topic?

⎕ Did you discuss the implications of your results? (What do they mean? Why are they important?...)

⎕ Did you consider the significance of your paper?

⎕ Did you look for possible limitations and/or extensions of your topic?

⎕ Did you make links between your topic and different fields and/or areas of mathematics?

**Personal engagement**

⎕ Did you ask and answer personal questions (“I wonder if…, What if…)?

⎕ Did you try to think independently and creatively?

⎕ Did you address why you think your topic is interesting or why it appealed to you?

⎕ Did you present mathematical ideas in your own way (as opposed to copy someone else’s theory)?

⎕ Did you try to add “your voice” to the work?

⎕ Did you relate the results to your own life?

IB Math SL IA Exploration Rubric Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_ Marks\_\_\_\_\_\_\_\_/20

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| **A: COMMUNICATION (4)**  This criterion assesses the organization and coherence of the exploration. A well-organized exploration contains 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.  Graphs, tables and diagrams should accompany the work in the appropriate place and not be attached as appendices to the document. | |  |
| 0 | The exploration does not reach the standard described by the descriptors |
| 1 | The exploration has some coherence. |
| 2 | The exploration has some coherence and shows some organization. |
| 3 | The exploration is coherent and well organized. |
| 4 | The exploration is coherent, well organized, concise and complete. |
|  | |  |
| **B: MATHEMATICAL PRESENTATION (3)**  This criterion assesses to what extent the student is able to:   * 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.   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, screenshots, graphing, spreadsheets, databases, drawing and word processing software, as appropriate, to enhance mathematical communication. | |  |
| 0 | The exploration does not reach the standard described by the descriptors. |
| 1 | There is some appropriate mathematical presentation. |
| 2 | The mathematical presentation is mostly appropriate. |
| 3 | The mathematical presentation is appropriate throughout. |
|  | |  |
| **C: PERSONAL ENGAGEMENT (4)**  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. | |  |
| 0 | The exploration does not reach the standard described by the descriptors. |
| 1 | There is evidence of limited or superficial personal engagement. |
| 2 | There is evidence of some personal engagement. |
| 3 | There is evidence of significant personal engagement. |
| 4 | There is abundant evidence of outstanding personal engagement. |
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| **D: REFLECTION (3)**  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. | |  |
| 0 | The exploration does not reach the standard described by the descriptors. |
| 1 | There is evidence of limited or superficial reflection. |
| 2 | There is evidence of meaningful reflection. |
| 3 | There is substantial evidence of critical reflection. |
|  | |
| **E: USE OF MATHEMATICS (6)**  This criterion assesses to what extent and how well students use mathematics in the exploration. **SL Only**  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.  A piece of 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. | |  |
| 0 | The exploration does not reach the standard described by the descriptors. |
| 1 | Some relevant mathematics is used. |
| 2 | Some relevant mathematics is used. Limited understanding is demonstrated. |
| 3 | Relevant mathematics commensurate with the level of the course is used. Limited understanding is demonstrated. |
| 4 | Relevant mathematics commensurate with the level of the course is used. The mathematics explored is partially correct. Some knowledge and understanding are demonstrated. |
| 5 | Relevant mathematics commensurate with the level of the course is used. The mathematics explored is mostly correct. Good knowledge and understanding are demonstrated. |
| 6 | Relevant mathematics commensurate with the level of the course is used. The mathematics explored is correct. Thorough knowledge and understanding are demonstrated. |