

Mathematical Exploration – HL/SL ~ Student Checklist

Student: _____ date: _____ Maths HL or SL: _____

1. Is your report written entirely by yourself – and trying to avoid simply replicating work and ideas from sources you found during your research? Yes No
2. Have you strived to apply your personal interest; develop your own ideas; and use critical thinking skills during your exploration and demonstrate these in your report? Yes No
3. Have you referred to the five assessment criteria while writing your report? Yes No
4. Does your report focus on good mathematical communication – and read like an article for a mathematical journal? Yes No
5. Does your report have a clearly identified introduction and conclusion? Yes No
6. Have you documented all of your source material in a detailed bibliography in line with the IB academic honesty policy? Yes No
7. Not including the bibliography, is your report 6 to 12 pages? Yes No
8. Are graphs, tables and diagrams sufficiently described and labelled? Yes No
9. To the best of your knowledge, have you used and demonstrated mathematics that is at the same level, or above, of that studied in IB Mathematics HL/SL? Yes No
10. Have you attempted to discuss mathematical ideas, and use mathematics, with a sufficient level of: knowledge & understanding (SL); sophistication and rigour (HL)? Yes No
11. Are formulae, graphs, tables and diagrams in the main body of text? (preferably no full-page graphs; and no separate appendices) Yes No
12. Have you used technology – such as a GDC, spreadsheet, mathematics software, drawing & word-processing software – to enhance mathematical communication? Yes No
13. Have you used appropriate mathematical language (notation, symbols, terminology) and defined key terms? Yes No
14. Is the mathematics in your report performed precisely and accurately? Yes No
15. Has calculator/computer notation and terminology **not** been used? Yes No
($y = x^2$, not $y = x^{\wedge} 2$; \approx , not = for approx. values; π , not pi; $|x|$, not abs(x); etc)
16. At suitable places in your report – especially in the conclusion – have you included reflective and explanatory comments about the mathematical topic being explored? Yes No