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? 
   \[ y = x^2, \text{ not } y = x^\wedge 2; \approx, \text{ not } = \text{ for approx. values}; \pi, \text{ not } \pi; |x|, \text{ not } \text{abs}(x); \text{ etc} \]
    ☐ Yes ☐ No

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