PART 1

This work concerns the IB syllabus topics: SL 2.1, SL 2.2, SL 2.3, SL 2.4, AHL 2.7 and AHL 2.8. These topics are considered known from Grade 10 and this work aims to refresh/build skills in the direction needed for this IB course.

1. Study Section SL 3A: Concept of a function.

   Do exercises SL 3A: 5,6,7,8,12a,13b,14b,15b,17b,18a, 23b, 24, 36, 44, 45 (use GDC).

2. Study Section SL 3B: Sketching graphs.

Do Exercises SL 3B: 2b, 3, 5a, 6a, 7a, 9a, 10a, 11a, 12a, 13b, 15a, 18b, 24, 27.

3. Study Section HL 5A: Composite functions

Do Exercises HL 5A: 10a, 12a, 16, 21, 22, 24.

4. Study Section HL 5B: Inverse functions

Do Exercises HL 5B: 12a, 18, 21, 23, 27

5. Study Section HL 5C: Transformations of graphs

Do Exercises HL 5C: 5a, 6a, 7a, 8a, 9b, 11a (f (3x)), 12a, 17a, 19a, 32, 36, 39, 41

PART 2

Come up with two possible topics for your IA. For each one write down a paragraph of how you would envision it. What would you investigate? What kind of math will you use? Include specific mathematical examples that relate to your topic and could potentially be included in your IA.