Title: Compounding Interest (AI SL 1.4)

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Subject and/or related curriculum/pedagogy: DP Mathematics AI SL 1.4

Audience: Students

Learning time: Approximately 3 hours

Overview:

In this highly applicable subtopic, students will learn about how geometric sequences extend into financial applications, specifically compound interest on savings, investments, and loans. Included in this unit are notes on the basics on these concepts, a large set of exercises to practice their skills, and interest activities and investigations. Subject guide content covered includes:

- Financial applications of geometric sequences and series:
    - compound interest
    - annual depreciation

Students should observe multiple demonstrations that show the "power of compound interest". One of the main misconceptions to clear up immediately is that the percentage increase is on the most recent value, not the original (principal) value.

Teacher materials included in this set:

- Teacher Notes: Compounding Interest Subtopic Notes
- Teacher Notes 1: Compound Interest Problem Solving
- Teacher Notes 2: e-Investigation + Solutions
- Teacher Notes: Futurama Interest Activity

Student materials included in this set:

- Handout 1: Compound Interest Problem Solving
- Handout 2: e-Investigation
- Compound Interest Calculators