Section 1: Limits, Continuity, Sequences, Series

- Limits and continuity
  - Definitions
    - Limits
      - You can define right and left limits
        - It also works for x approaching infinity
          - Formal definition of limits
    - Continuity
      - Attention for functions that are not defined for the whole set of real numbers.
    - Differentiability
  - Rules/theorems/tricks
    - Limit laws (1-5 also valid for x approaching infinity)
      - Sandwich theorem
        - L'Hôpital
          - Moving the limit inside or outside
    - List of some continuous functions
      - Composition of continuous functions are continuous in their domains
        - Be careful with the domains.
    - Differentiability and continuity of a function

- Sequences and series
  - Definitions
    - Sequences...
      - ...and their limits
    - Series
      - Geometric series
      - Harmonic p series
  - Rules/theorems/tricks
    - Connecting limits of real valued functions and limits of sequences
      - The sandwich theorem also works for sequences
    - Composition of sequences
      - Standard limits for sequences
        - Helping you identify sequences hierarchy
    - Properties of series
      - Convergence and divergence tests for series
        - Ratio test
        - Divergence test via the limit of the associated sequence
        - Comparison test for positive term series