• The homework is not due. It is just for your own revision.
• Be sure to write out detailed solutions, showing all your steps.

1. Write out responses to the following prompts:

   (a) Imagine that you are talking to an intelligent friend who is untrained in mathematics. Describe what a function is, what they’re used for and why they matter. Use examples from subjects that you find interesting. Imagine questions your interlocutor would ask and answer them. If you don’t know the answers, look them up.

   (b) Now that your friend understands what a function is, tell them what a limit is, what they’re used for and why they matter. Again, use examples. Answer any questions that your friend asks.

   (c) Finally, tell your friend what the derivative is, what it’s used for and why it matters. Again, use examples. Answer any questions that your friend asks.

2. Stewart:

   **Chapter 1 Review Exercises:** 3, 7, 9, 15, 17, 19, 23, 25, 29, 31
   **Chapter 2 Review Exercises:** 1, 5, 13, 21, 25, 29, 37, 43, 45
   **Chapter 3 Review Exercises:** 1, 7, 13, 17, 21, 39, 47, 51, 55, 57, 61, 67, 77
   **Chapter 4 Review Exercises:** 5, 11, 15, 25, 31, 35, 39