Instructions:

- All code is to use the Beginning Student with List Abbreviations.
- The first part of the exam is a series of multiple choice questions. Read the instructions carefully. You must complete the answer sheet found at the end of the exam.
- Individual questions will indicate which design recipe components must be included for full marks. Unless otherwise specified, you can assume the following:
  - “Complete the function ...” means you are only required to provide the function body and any helper functions you deem necessary. Helper functions may appear after the primary function definition.
  - Helper functions you define only require a function header and body.
  - Examples and tests must use check-expect, and unless otherwise allowed, must be different from any examples supplied in the question. Examples also count as test cases.
- Your functions do not have to check for values not specified by the contract unless we ask you to do so.
- Functions you write may use:
  - Any function you have written in another part of the same question.
  - Any function we asked you to write for a previous part of the same question (even if you didn’t do that part).
  - Any other built-in function or special form included in the course notes or the list functions allowed for assignments, unless specifically noted in the question.
  - You are not allowed to use other functions such as if or reverse, since they have never been allowed for assignments.
- Throughout the exam, you should follow good programming practices as outlined in the course such as appropriate use of constants, meaningful identifier names, and use of helper functions where appropriate.
- If you believe there is an error in the exam, notify a proctor. An announcement will be made if a significant error is found.
- It is your responsibility to properly interpret a question. Do not ask questions regarding the interpretation of a question; it will not be answered and you will only disrupt your neighbours. If there is a non-technical term you do not understand you may ask for a definition.
- If, despite your best efforts, you are still confused about a question, state your assumptions and proceed to the best of your abilities.
- If you require more space to answer a question, you are likely writing too much. However if you do need more space, you may use the blank page(s) at the end of this exam, but you must clearly indicate in the provided answer space that you have done so.