Instructions:

- There are a total of 10 questions and 61 points on this exam.
- All code is to use the Intermediate Student with Lambda language.
- Design recipe components are not required for functions we ask you to write, unless explicitly stated in the question. If you write helper functions that are not specifically asked for, they must include a purpose, contract, and function definition, unless stated otherwise.
- If a question or part has specific design recipe requirements or other restrictions, they will be indicated by text in a box.
- Unless otherwise specified, helper functions may be defined locally or separate from your primary function.
- Throughout the exam, you should follow good programming practices as outlined in the course such as appropriate use of constants and meaningful identifier names.
- Your functions do not have to check for invalid arguments.
- 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 did not complete that part).
  - Any function on the reference sheet.
  - Any built-in mathematical function.
  - Any other built-in function or special form that appears in lecture slides, unless specifically noted in the question.
- Unless otherwise specified, for questions where you are required to provide a value, you may use either cons, list, or quoted list notation. For stepper questions, switching between these notations does not count as a “step”.
- 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.
- The amount of space allocated to a question does not necessarily reflect the length of the response required.
- If you require more space to answer a question, 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.