POST MORTEM
CS 135 Fall 2025, Assignment 03

Question 2: `recursion.rkt`

Mistakes in the Contracts:

- **Q2a**
  - Many students incorrectly used `Num` as the produced Data Type.

- **Q2b**
  - Many students missed adding a colon after the function name of their contract. (No deduction this time)
  - Many students incorrectly put `Rat` as the produced Data Type.

Question 3: `robot.rkt`

Mistakes in the Data Definitions:

- Many students wrote the definition of `Direction` in plain sentences or bullet points, instead of using brackets.
- Many students wrote `one of`, `any of`, etc., instead of `anyof`.
- Many students did not have the correct `cons` notation for the `State`'s definition.
  - Some students used `list` notation, which was not yet allowed in A03.
  - Some students used `Int` or `Num` instead of `Nat`.
  - Some students used `x`, `y` without defining what they are.
  - Some students used `Sym` instead of `Direction`.
- For `State`, almost no students declared constants for `0` and `10` as border's minimum and maximum values. Though some students did include a `Requires`: clause. (No deduction this time)

Mistakes in the contract:

- Many students used `Sym` instead of `Command` in their contract for `robot-ctl`.

Question 4: `catan.rkt`

Mistakes in Code Style:

- Many students repeated code instead of using helpers. There were many situations where helper functions could have been used to make the code cleaner. Please refer to the sample solutions.
  - Some students used `first` and `rest` excessively instead of defining extractor helper functions for `lumber`, `brick`, `wool`, etc. Defining functions such as `get-lumber` would have made code much cleaner and more readable.

Mistakes in the Design Recipe:

- Some students were missing purpose statements altogether.
- Many students used `Num` or `Int` instead of `Nat` in the consumed Data Types for the contract of `mk-inventory`.
- Many students used `Sym` or `Symbol` instead of `Action` in the consumed Data Types for the contract of `count-actions`.
- Many students were missing capitalization for their Data Types.