Post-Mortem
CS135 Fall 2023, Assignment 6

Question 2b

Contract

- Some students used Sym Num instead of SignMag.
- Some students used Any of instead of Any.

Template

- Students who decided to expand the template for \((\text{signmag-sign \ldots})\) into conditionals for ‘positive, ‘negative, and ‘zero had the following common errors:
  - Some students forgot to add the \((\text{signmag-mag \ldots})\) field afterwards.
  - Some students were missing ellipses before the conditional statement.
  - Some students added an unnecessary else statement in the template.

Question 4

Part a:

- Many students used \((\text{listof Str})\) instead of \((\text{anyof empty (list Str Str)})\). Remember to be as specific as possible when writing the contract.
- Some students forgot that the produced data type could be empty.
- Some students went over the list of Actions twice to find the minimum and maximum scored actions separately.
- Instead of using accumulators, some students used multiple helper functions to traverse the list of Actions many times.

Parts b, d:

- Many students wrote Sym instead of explicitly writing ‘coal or ‘krampus in their their contracts.
- Many students forgot either that the naughtiness threshold was an integer, or the requirement that this naughtiness threshold had to be negative.
- Some students wrote ActionSearchTree instead of ActionST in their contracts.
- For the purpose, many students wrote overly detailed descriptions, especially on part (b). The purpose description should not be overly long and laying down all the rules of how to get the answer. It should simply focus on what the function produces.
• In both parts, many students did not use accumulative recursion. Although it was not a requirement, many approaches using append, sorting the result, or even reversing the result (even though it was banned) led to traversing the ChildrenList or ActionST multiple times. This can quickly lead to exponential blowup - and hence code complexity marks were deducted.

• Some students did not use their answer for part (b) as a helper when solving part (d), leading to unnecessarily regenerating the gifts received for each child.

• Some students had smaller oversights (no marks were deducted here):
  – Some students did not reference the parameter names in the purpose description.
  – Some students used bad parameter or function names! Adding /acc to a function name when not using accumulative recursion or naming the function helper when it has a specific purpose is not helpful to the reader. It may even be difficult for graders to mark your assignment even if you have the correct solution.