CS115 Midterm Post Mortem
Spring 2017
Overall Average 62.3%

Q1: 66%
- Some people mixed up how quotient and remainder works. The explanation on the reference sheet should have cleared up both issues.
- Some students did not evaluate expressions from left to right. Some evaluated all expression in one step and a few evaluated from right to left.
- Some students mixed up how to do parameters and constants. We substitute parameters all in once but we substitute constants one by one from left to right.
- If the values you want to assign to parameters are constants, you need to do constants substitutions then parameters substitutions. Also some people evaluated one expression into more one steps. For example, (+7 16 10) then (+ 23 10) then 33. This is wrong since (+ 7 16 10) is only one expression so we evaluate it by using one step.

Q2: 58%
- Some students did not provide the contract for reverse-str. Some student still did not capitalize the first letter or did not write in short hand.
- Some students did not provide enough test cases to earn full credit. See solution for all necessary test cases.
- In part c, a lot students did not try the question. You can at least try to put base case correctly to earn partial credit.

Q3: 56%
- Lots of students did not do well on the template of structure contain list. See solution and module 5 page 53-54 to check the correct format.
- A few students put Num instead if Nat on contract part. If a function consumes a structure, we just put that structure name and capitalize first letter eg Team.

Q4: 82%
- Done very well overall.
- Still some student still did not capitalize the first letter or did not write in short hand.
Q5: 68%
- This question is cond free question but there are some people still using it. The penalty for using forbidden function is 0 mark on that question.
- Some student did not use the selector correctly to get access to fields of nested structure. See solution and A4 on how to execute on nested structure.

Q6: 80%
- Done very well overall.
- A few students did not try the question. You can at least try to put base case correctly to earn partial credit.

Q7: 63%
- The type of output should be Int instead of Nat. A lot of students did not put requires section. Requirements should use parameter names, not data types.
- Some students mixed up how quotient, remainder, integer and / work. See solution for details.

Q8: 41%
- Missing template for a function that consumes a list. Putting the list template within the template of Account. Missing contract for the list function.
- Missing requires section i.e. (account-trans acc) is non empty list.
- Recursive helper consumes a structure (and in the recursive call, a list is passed as the argument).