University of Waterloo
CS240 Fall 2017
Assignment 5 Post Mortem

Problem 1

a) Done well.

b) Done well.

cd) Some students gave only a specific example. For full marks they should have given a generic example that works for all n and m. It was also sufficient to give a specific example and an explanation of how it extends to the generic case.

e) Some students gave a pattern and text but did not show why the peek heuristic fails to find P in T.

Problem 2

Done well.

Problem 3

a) Some students gave suffix tries that did not have l..r indices and instead stored the entire substring that needs to be compared at each node.

Some students gave incorrect l..r indices or omitted them entirely.

A few students did not draw the compressed trie.

b) Done well. A few students did not give all four result locations, or stopped the search when they couldn't check index 3 of the pattern.

Problem 4

a) Generally done well, though some students did not follow the conventions given in the question for choosing which side to place tries or breaking ties.

b) Some students drew a tree where characters were nodes and not leaves and argued that can't be constructed with a Huffman algorithm, while answers should have been given as a prefix-free encoding tree.

c) Reasonably well done. Most students did not use WPL for the proof, which wasn't required, but could make it easier to give a rigorous proof.

Problem 5

Generally well done.

Some students did not read the input in a way that would properly handle all input (notably failing to handle spaces and/or newlines).

A few students did not use a trie to implement the dictionary.