COMP 550
Algorithms and Analysis
Spring 2020
Homework 8
Due Thursday, April 16, 2020

1. What is an optimal Huffman code for the following set of frequencies?
a:1, b:3, c:5, d:2, e:7, f:4 g:2, h:6

2. Show that if the set of frequencies assigns a higher frequency to element x than element y then in an optimal Huffman code, x will never have more bits than y.

For this homework you may work in groups of up to four people and groups are encouraged to turn in only one paper with everyone's names in the group on it. This will make the work of the grader easier. However, people in different groups may not collaborate.

Those who want to be part of a group and can't find others may meet in the front after class and form groups, if you desire to. You may also send email to the TA and he will assign people to groups.