University of Waterloo CS240 - Winter 2021 Assignment 4 Post Mortem

Problem 1

- Q1b, some students did not define t and did not prove m = t.
- Q1c, students let m be the correct formula without showing how they get it.
- Q1c, incorrect formula for m.

Problem 2

• Generally well done.

Problem 3

- Q3ac, many student forgot +1 or -1.
- Q3bd, many students did not write the internal nodes and leaf.
- Q3b, students omit the analysis for leaves.
- Q3c, many students have the incorrect height n+1.
- Q3e, incorrect justification. Some students compared mn^2 to nm^2 rather than the reason why this happens.

Problem 4

• Generally well done.

Problem 5

- Some students use sorting algorithm first.
- Missing justification of the running time and algorithm correctness.
- Some students did not use map and used while loop in for loop.

Problem 6

- Q6a, missing labels / not draw the tree.
- Q6b, missing the base.
- Q6c, incorrect answer. Some students claim that either there is no difference, or the difference is bounded.