

COMP 550-001
Algorithms and Analysis
Fall 2019
Homework 4
Due Monday, February 10, 2020

1. Is the array with values (23, 17, 14, 6, 4, 10, 1, 5, 4, 3, 5) a max heap? Justify your answer briefly.

2. Suppose an array (a_1, a_2, \dots, a_n) is a max heap. Is the array $(a_j, a_{j+1}, \dots, a_n)$ always a max heap for all values of j , $1 \leq j \leq n$? Justify your answer briefly.

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.