Lab 6
CSCI232
Assignment due 10/16, at 11:30pm
Work with your partner of choice
Only 2 problems this time

Purpose: To understand heap sort and binary search trees

Using the heapsort code in the github lab6 folder, Run the code to show what the array looks like at the end of heap construction or sink down set. You should have around 14 print statements.

1. Do Not Program: Draw the tree as it stands for each of those print statements. (14 trees)
2. Do Not Program: Draw the binary search tree (using the binary search tree algorithm we went over in class) for the input I W I S H I D I D N O T H A V E T H I S T E S T. As with the program I gave you, you will assign a number for each letter as its value.
   Example: I(0) W(1) I(2) S(3) H(4) …
   Show in your tree the final value assigned to the key.

Due: Wednesday, 10/16 at 11:30pm

Note: work with a lab partner – only 1 of you will submit your answers to brightspace in the lab6 folder. In each of your files that you submit, put lab partners: <your name and partner's name> at the top of the file (along with your name of course).

Submission You will submit the source files and output for question 1. For 2 and 3 write up your answers and submit to brightspace – either a picture or scan of your handwritten answer or a file from the computer. (Do not turn anything in to the TAs). Zip the files together and name them: <partner1first/last name>_<partner2first/lastname>.zip.

Rubric:

1. — 10 pts (5 pts for showing work, 5 pts for correct trees)
2. – 10 pts (5 pts for showing work, 5 pts for showing the correct tree with proper value for each node)