



## Quiz navigation



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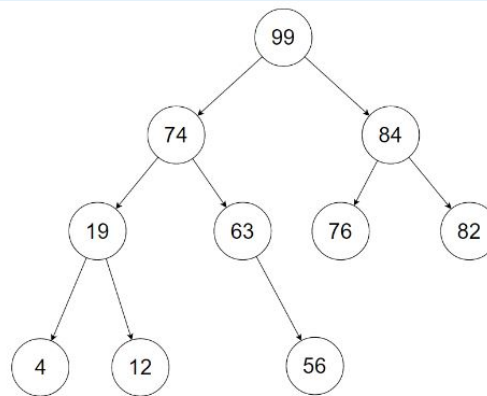
Finish review

Started on	Wednesday, May 3, 2017, 11:15 AM
State	Finished
Completed on	Monday, May 8, 2017, 12:30 AM
Time taken	4 days 13 hours
Grade	58.50 out of 60.00 (98%)

## Information

Flag question

Use the tree below for the next two questions.



## Question 1

Correct

1.00 points out of 1.00

Flag question

Is the tree a maxheap?

Select one:

☐ Yes☒ No ✓

Your answer is correct.

The correct answer is: No

## Question 2

Complete

2.00 points out of 2.00

Flag question

Briefly explain why or why not.

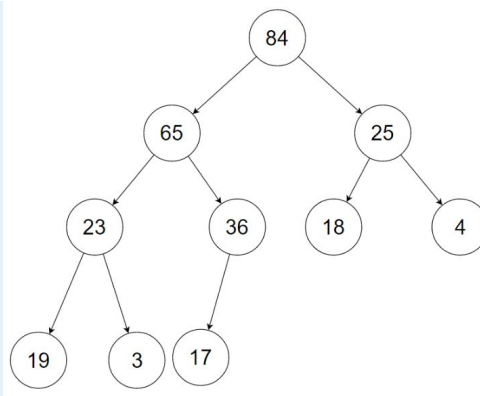
It is not a maxheap because it is not complete - the children are not located as far to the left as possible.

Comment:

## Information

Flag question

Use the tree below for the next two questions.

**Question 3**

Correct

1.00 points out of 1.00

Flag question

Is the tree a maxheap?

Select one:

☒ Yes ✓☐ No

Your answer is correct.

The correct answer is: Yes

**Question 4**

Complete

2.00 points out of 2.00

Flag question

Briefly explain why or why not.

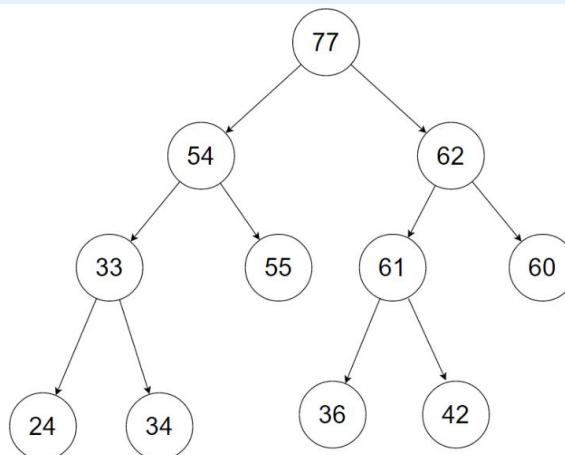
yes, because each parent node is greater than or equal to all child nodes &amp; it's complete.

Comment:

**Information**

Flag question

Use the tree below for the next two questions.

**Question 5**

Correct

1.00 points out of 1.00

Flag question

Is the tree a maxheap?

Select one:

☐ Yes☒ No ✓

Your answer is correct.

The correct answer is: No

**Question 6**

Complete

2.00 points out of 2.00

Flag question

Briefly explain why or why not.

no, because parent node (54) is less than child node (55) & it's not complete - all children are not located as far to the left as possible.

Comment:

**Question 7**

Complete

10.00 points out of 10.00

Flag question

Draw a maxheap from the following 14 words. Assume alphabetic ordering (so "Z" is greater than "A").

The words are the contents of the maxheap, **not** the insertion order. You can determine the insertion order.

apple  
banana  
carrot  
eggplant  
grape  
kimi  
lime  
mango  
orange  
pear  
quince  
radish  
tomato  
yam

Untitled.tiff

Comment:

**Question 8**

Correct

1.00 points out of 1.00

Flag question

Is the maxheap you drew above unique?

In other words, is this the **only possible** maxheap for these words?

Select one:

☐ Yes

☒ No ✓

Your answer is correct.

The correct answer is: No

**Question 9**

Complete

10.00 points out of 10.00


Flag question

Trace the creation of the maxheap from the numbers below.

14, 18, 22, 26, 28

Use the approach described in the textbook Section 26.13 and the **first** approach described in the [online notes](#).

- In this approach, you reheap after each addition..
- Show what the tree looks like when each node is added **and** what the tree looks like when reheap is called as a result of each addition.
- You do not need to show the array.




Comment:

**Question 10**

Complete

9.50 points out of 10.00

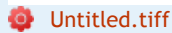
 Flag question

Trace the creation of the maxheap from the numbers below.

14, 18, 22, 26, 28

Use the approach described in the textbook Section 26.16 and the **second** approach described in the [online notes](#).

- In this approach, you add all elements to the tree and then iteratively reheap.
- Show the initial array and then show what the array **and** the tree look like after **each** call to reheap.
- Remember that reheap is not called for every node when you use this approach.




Comment:

-0.5 requirement was to show trees and arrays, not just the trees, for each step

**Question 11**

Complete

10.00 points out of 10.00

 Flag questionDraw the 2-3 **tree** that results from adding the following numbers to an initially empty tree.

14, 18, 21, 24, 25, 32, 37, 38, 39, 42


Show what the tree looks like after **each** element is added. You are not required to show the splitting steps, but you must show what the tree looks like after each insertion.This means there should be **10 trees** in your answer to this question.


Comment:

**Question 12**

Complete

9.00 points out of 10.00

 Flag questionDraw the 2-4 **tree** that results from adding the following numbers to an initially empty tree.

14, 18, 21, 24, 25, 32, 37, 38, 39, 42

Show what the tree looks like after **each** element is added. You are not required to show the splitting steps, but you must show what the tree looks like after each insertion.This means there should be **10 trees** in your answer to this question.


Comment:

-1 in the addition of 39, the very first 4-node will be split when you try to search for where the 39 belongs

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