Quiz 23

Due Jun 14 at 11:59pm **Points** 6 **Questions** 6
Available until Jun 14 at 11:59pm **Time Limit** None

Instructions

Answer the following questions.

This quiz is no longer available as the course has been concluded.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	18 minutes	6 out of 6

Score for this quiz: **6** out of 6
Submitted Jun 14 at 4:04pm
This attempt took 18 minutes.

Question 1 — 1 / 1 pts

In max-heap, every node is larger than its children.

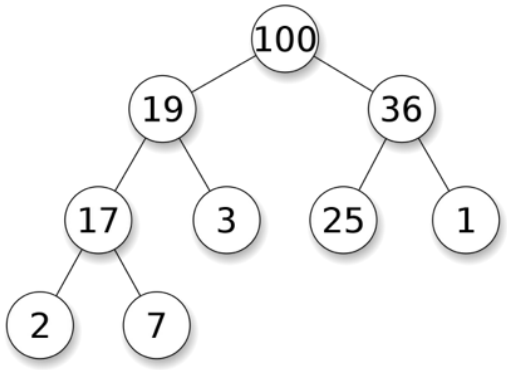
Correct!

- (•) True
- ( ) False

Question 2

1 / 1 pts

Consider the following max-heap.



How does the tree changes if node 28 is inserted?

- Node 28 becomes left child of node 36.
- Node 28 becomes the right child of node 36.

Correct!

- Node 28 becomes the left child of root.

Question 3

1 / 1 pts

Consider the heap from previous question. How does the tree changes is the root is removed?

- Node 36 becomes the root, and its right child becomes 7.

Correct!

- (•) Node 36 becomes the root, and its right child becomes 25.
- ( ) Node 19 becomes the root, and left child becomes 17.
- ( ) Node 19 becomes the root, and its left child becomes 7.

Question 4

1 / 1 pts

Considered order list of numbers 1, 2, 3, 4, 5, being inserted into an empty max-heap one-by-one. What would be the height of that max-heap?

- ( ) 3
- ( ) 4

Correct!

- (•) 2
- ( ) 5

Question 5

1 / 1 pts

If an array is used to store a max-heap, what would be the array indexes for the children of some node at index X?

Correct!

- (•) 2X+1 and 2X+2

- X+1 and X+2
- X/2 and X/2 + 1
- 2X and 2X + 1

Question 6

1 / 1 pts

Consider the following array of numbers: 53, 21, 73, 14, 22, 56.

What would be the result of heapifying this array?

- 56, 73, 53, 21, 14, 22
- 73, 53, 56, 22, 21, 14
- 73, 22, 56, 14, 21, 53

Correct!

- 73, 53, 21, 22, 14, 56

73, 22, 56, 14, 21, 53

Quiz Score: **6** out of 6