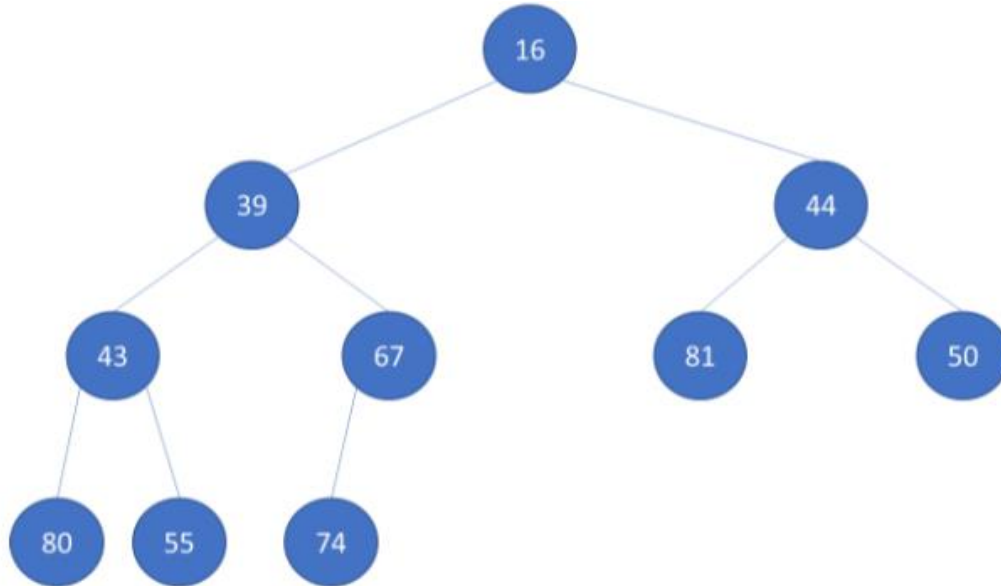


Task 1: How Heaps work

- a) Assume that you have the heap shown below, which is a minimum heap. Insert the element "25" in the heap. Show each step of the algorithm that finds the correct location for the new element.



- b) Given the same heap (without the insertion from task a). The user runs `delete_min` on the heap. Show each step in the operation to return a correct heap.

Task 2: Implement Max-Heapify

Consider input array 10,20,25,6,12,15,4,16. Draw a max heap. First create a binary tree from the array and then follow the process of max-heapify in the binary heap step by step.