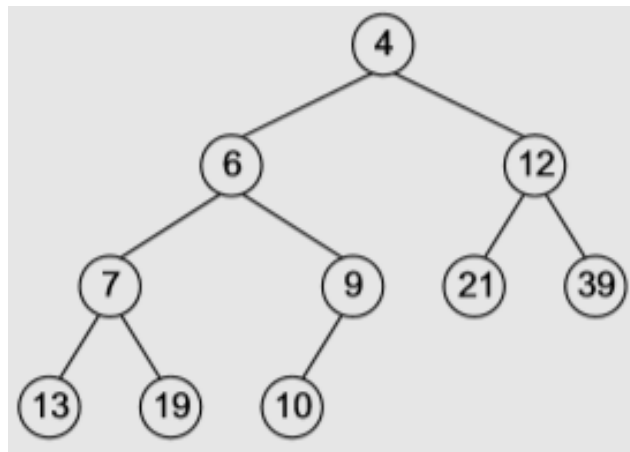


## Assignment 8 – Heaps

**Problem 1.** Build a max heap H from the given set of numbers: 50, 64, 52, 20, 43, 32, 61, and 12. Draw the memory representation of the heap (the array implementation).

**Problem 2.** Given a min heap H shown below. Please do the following tasks:

- Inserting an element to the heap (insert).
- Removing and returning the item with the lowest priority value (removeMin)
- Returning the lowest priority value item without removal (peak).
- Build a Heap Sort in decreasing order using min heap (HeapSort)



**Problem 3.** Start with an empty heap and enter 10 elements with priorities 1 through 10.

- Draw the resulting heap (max-heap).
- Remove three elements from the heap you created in the above heap. Draw the resulting heap.