CS62: Spring 2026: Lecture #16 worksheet

1. Fill in the method below to return a Comparator that would sort a list of integers based on their absolute value. Note: there is a Java static method Math.abs().

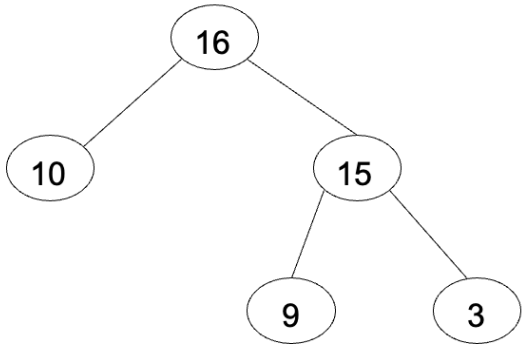
```
public static Comparator<Integer> absComparator(){



}
```

2.

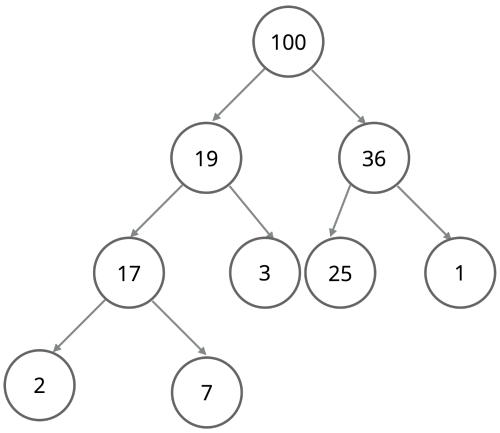
[-, 15, 12, 3, 11, 10, 2, 1, 7, 8]



[-, 20, 18, 10, 17, 16, 15, 9, 14, 13]



3. Delete and return the maximum of this binary heap (call extractMax).



4. Given an empty binary heap, perform the following operations. Ideally draw the heap at each step.

- insert(16)
- insert(17)
- insert (5)
- extractMax
- insert(24)
- insert(1)
- insert(13)
- extractMax
- insert(16)
- insert(12)
- insert(5)
- extractMax

5. Run the first step of heapsort, heap construction, on the array [2,9,7,6,5,8].

6. Given the heap you constructed before, run the second step of heapsort, sortdown, to sort the array [2,9,7,6,5,8].