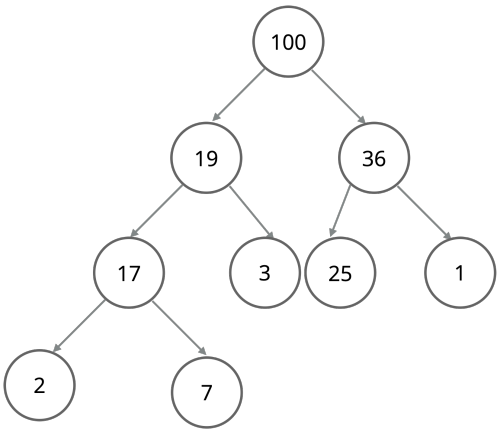
CS62: Spring 2025 | Lecture #16 (Priority Queues & Heapsort) worksheet | Jingyi Li

1. Delete and return the maximum of this binary heap.



2. Write the method `public E deleteMax()`. (Hint: it's only 4 lines of code. You can use sink(k)/swim(k).)

3. Given an empty binary heap that represents a priority queue, perform the following operations. Ideally draw the binary tree at each step.

- Insert P
- Insert Q
- Insert E
- Delete max
- Insert X
- Insert A
- Insert M
- Delete max
- Insert P
- Insert L
- Insert E
- Delete max

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

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