

# Bottom-Up Heap Construction

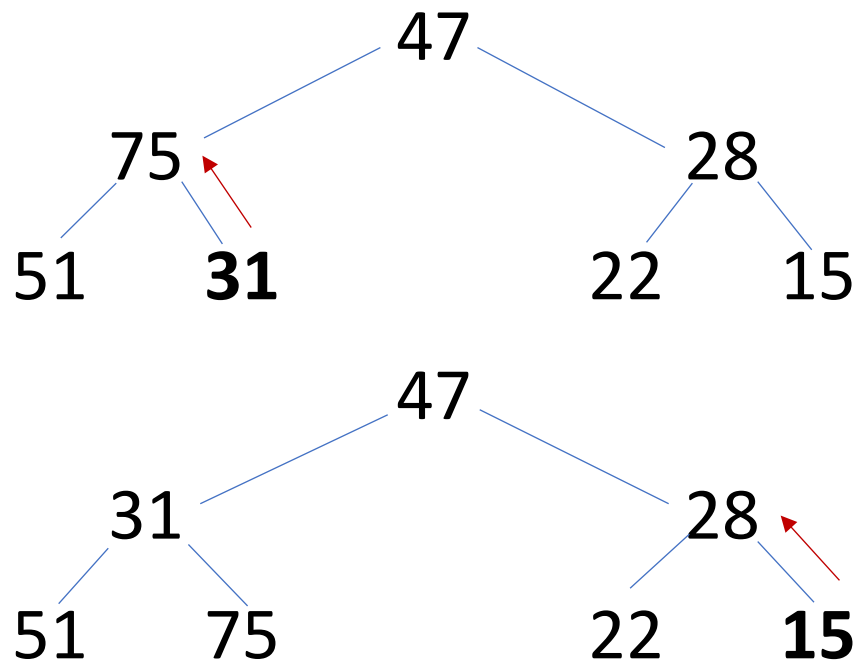
Construct a heap for the following list:

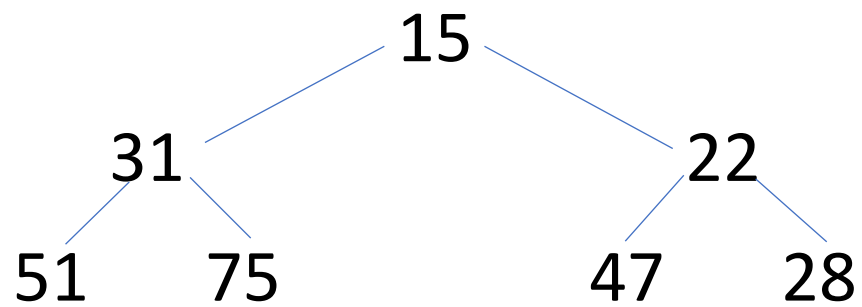
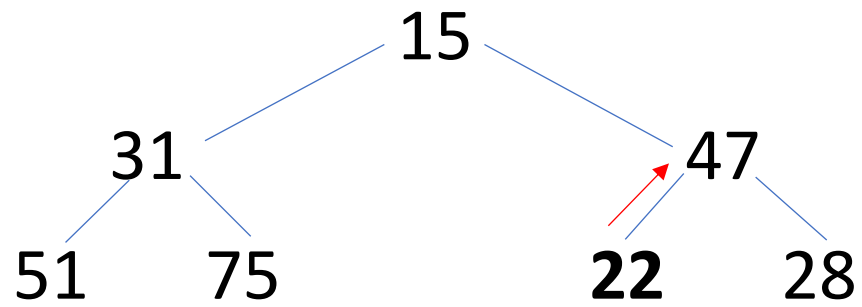
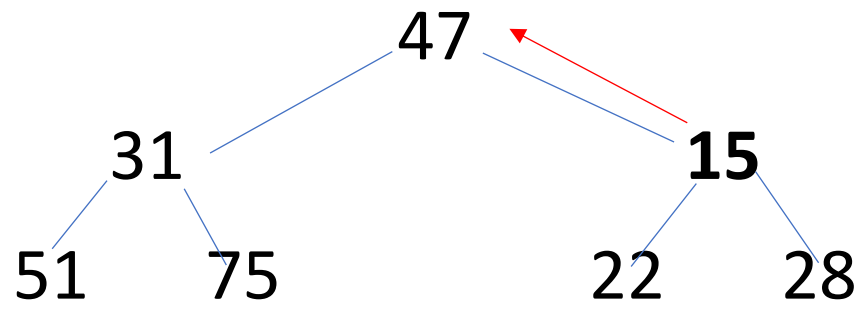
|    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|
| 47 | 75 | 28 | 51 | 31 | 22 | 15 |
|----|----|----|----|----|----|----|

First, store heap's elements in top-down, left-to-right order:

Step 1: Starting with the last (rightmost) parental node, fix the heap rooted at it, if it doesn't satisfy the heap condition: keep exchanging it with its smallest child until the heap condition holds

Step 2: Repeat step 1 for the preceding parental node





Done!