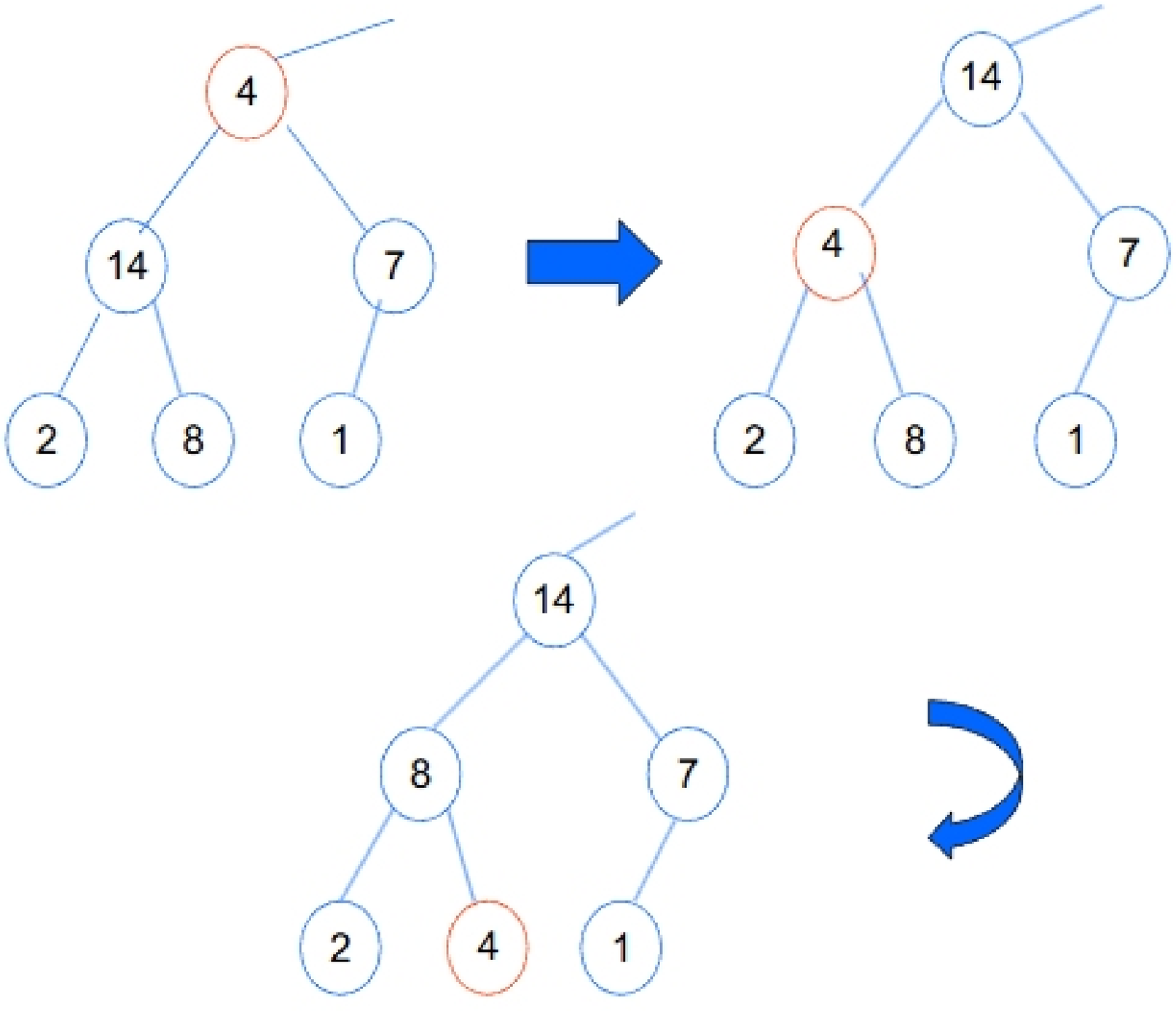
Max-Heapify

- Max-Heapify(A,i) is a subroutine.
- When it is called, two subtrees rooted at Left(i) and Right(i) are max-heaps, but A[i] may not satisfy the max-heap property.
- Max-Heapify(A,i) makes the subtree rooted at A[i] become a max-heap by letting A[i] “float down”.


4
14
7
2
8
1
14
4
7
2
8
1
14
8
7
2
4
1

```
Max - Heapify(A, i)
l ← Left(i);
r ← Right(i);
if l ≤ heap − size[A] and A[l] > A[i]
    then largest ← l
    else largest ← i;
if r ≤ heap − size[A] and A[r] > A[largest]
    then largest ← r;
if largest ≠ i
    then begin exchange A[i] ↔ A[largest];
            Max - Heapify(A, largest);
     end - if
```