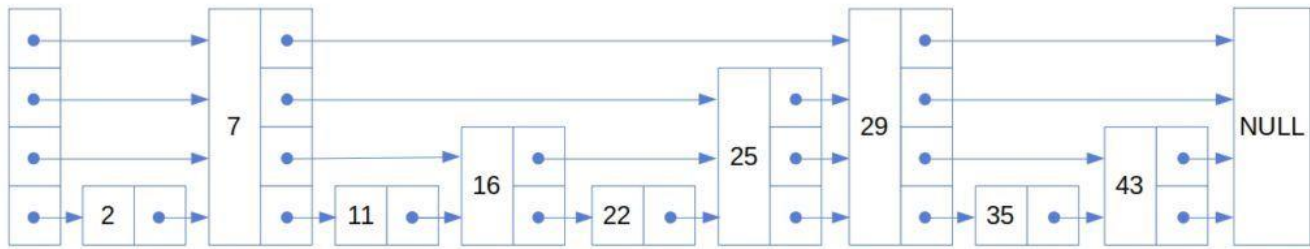


[Name / ID]: _____



Draw the Skiplist after inserting a new element with value 17 and height 2.

Draw the Skiplist after removing element with value 7.

Select the correct(s) answers for a Skiplist containing n elements:

- The expected total number of nodes, excluding sentinel nodes is:
 - $O(n)$
 - $O(n^2)$
 - $O(\log(n))$
 - $O(n/2)$
- The expected height is:
 - $O(h)$
 - $O(n)$
 - $O(\log(n))$
 - $O(2n)$
- The expected length of search path is:
 - $O(h)$
 - $O(n)$
 - $O(\log(n))$
 - $O(2n)$
- The cost of $\text{add}(x)$, including the cost of reaching the element, is:
 - $O(1)$
 - $O(\log(n))$
 - $O(n)$
 - $O(n^2)$
- The cost of $\text{remove}()$, including the cost of reaching the element, is:
 - $O(1)$
 - $O(\log(n))$
 - $O(n)$
 - $O(n^2)$