

Queue :-

FIFO

1 2 3 4 5 6
1 2 3 4 5

=> add() - $O(1)$
=> remove() - $O(n)$
=> Peek() - $O(1)$
=> Size() - $O(1)$

Diagram showing a queue with elements 1, 5, 2, 7, 9, 6, 7, 3. The first four elements (1, 5, 2, 7) are crossed out, indicating they have been removed. The remaining elements are 9, 6, 7, 3.

Peek: 27
remove: 27
Peek: 9
Peek: 9
remove: 9
remove: 6

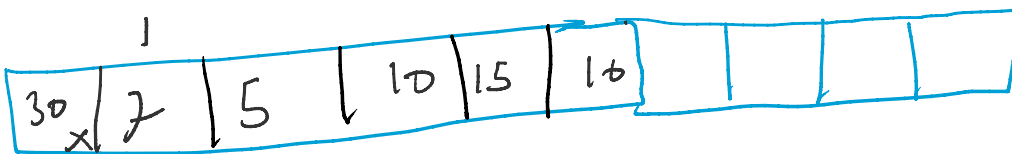
remove :-

0 1 2 3 4 5
3 7 1 8 6 14 21

ans = 3

$O(n)$

H.W. - Implement Queue using LL.
Queue using AL with remove of $O(1)$



Sum = 60
curr Sum = 60 - 30 = 30

K = 3

20, 30, 10, 5, 17, 18

Size = 6
front = 0
Peek() // 30
remove() // 30
Peek()