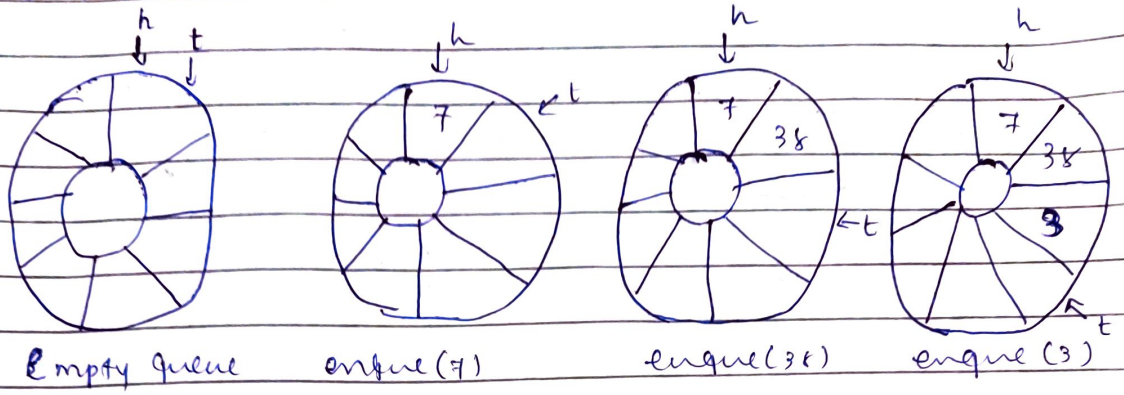
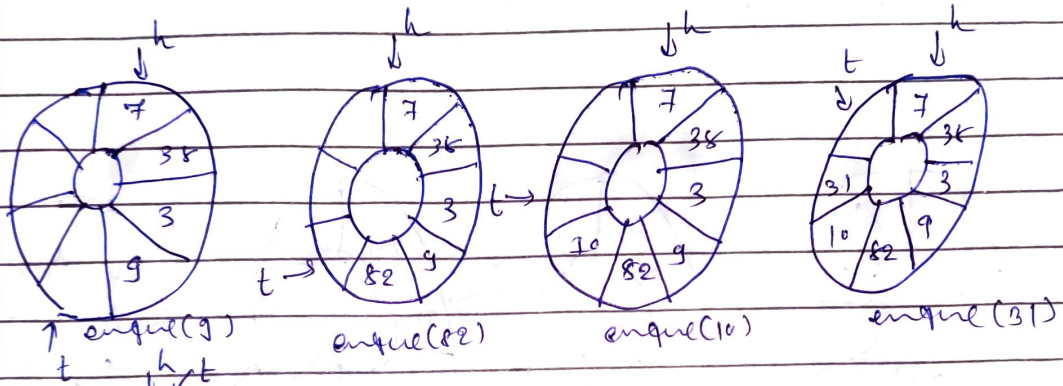
Assignment: 5

Ans: (a)

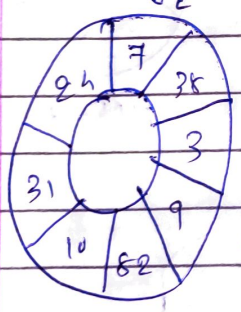
(i) input data = {7, 38, 3, 9, 82, 10, 31, 24}
enque all input data



Empty queue enque(7) enque(38) enque(3)

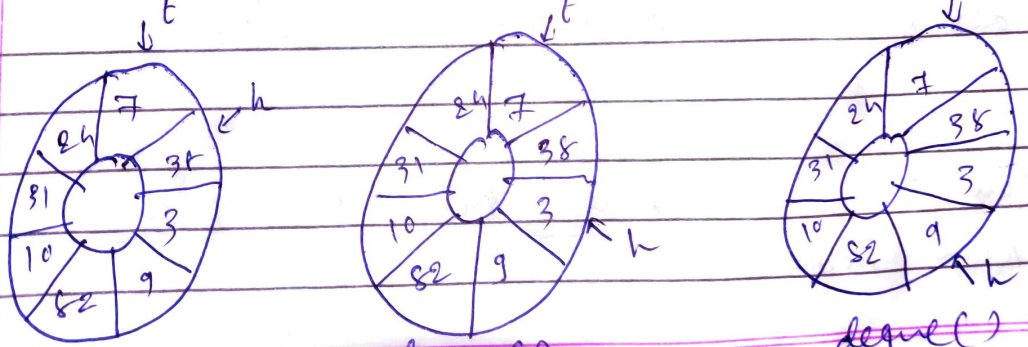


enque(9) enque(82) enque(10) enque(31)



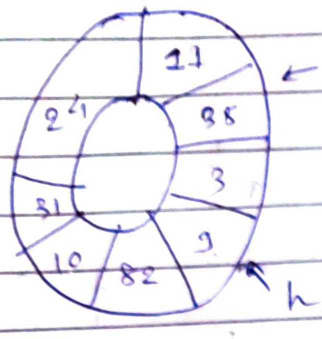
enque(24)

(ii) deque three elements

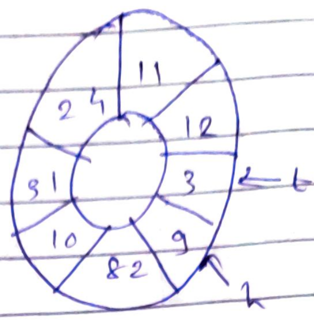


deque() deque() deque()

(iii) enqueue two element {11, 12}

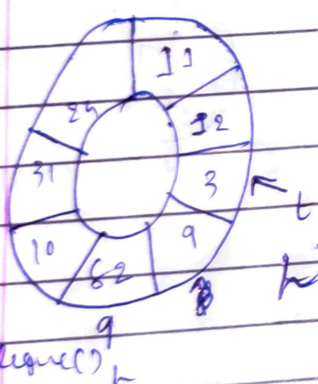


enque(11)

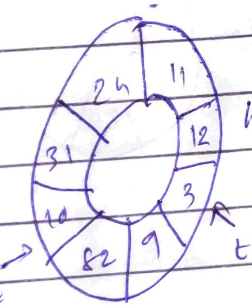


enque(12)

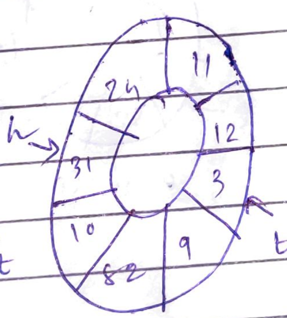
(iv) dequeue all elements:



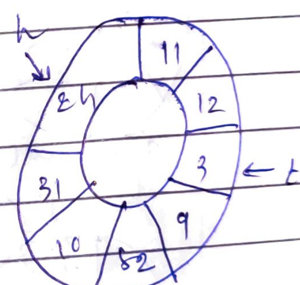
deque()



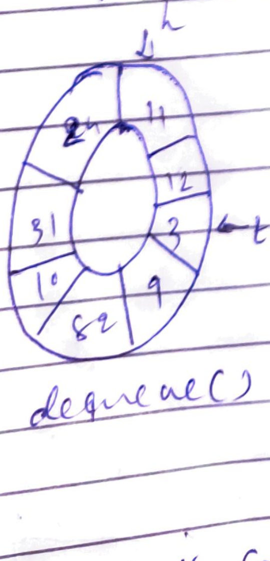
deque()



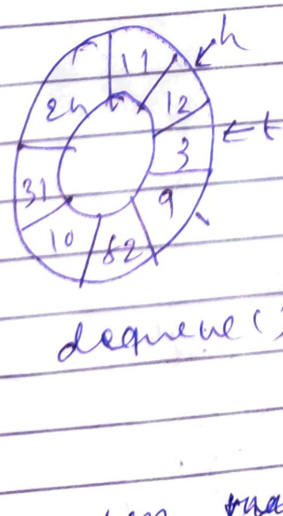
dequeue()



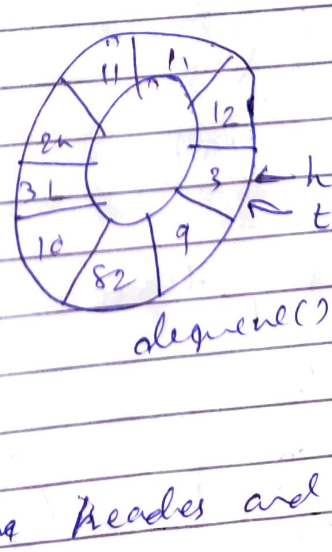
dequeue()



dequeue()



dequeue()



dequeue()

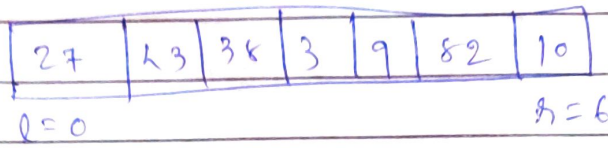
Queue is Empty when header and tail have same value.

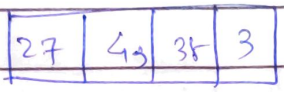
Ans: 2

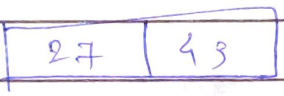
Signed byte x = -128 to 127

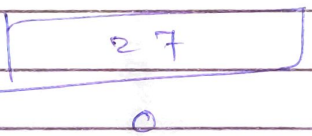
unsigned byte y = 0 to 255

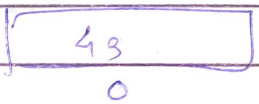
Ans: 4 arr = {27, 43, 38, 3, 9, 82, 10}

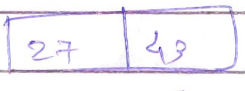


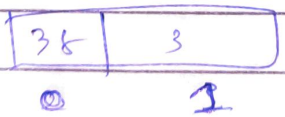
Step 1:  mergesort call

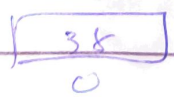
step 2:  mergesort call

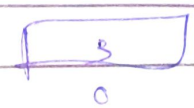
Step 3:  last element

Step 4:  last element

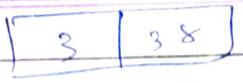
Step 5:  merge call

Step 6:  mergesort call

Step 7:  last element

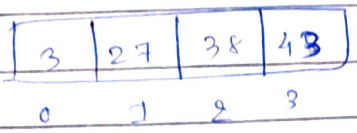
step 8:  last element

Step 9:



merge call

Step 10:

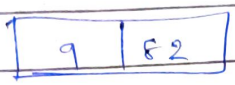


merge call

Step 11:

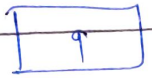
mergsort call

Step 12:



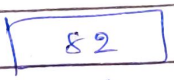
merge sort call

Step 13:



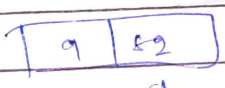
~~recc~~ last element

Step 14:



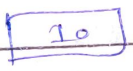
last element

Step 15:



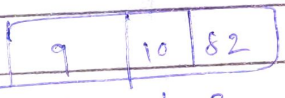
~~merging~~ merge call

Step (16)



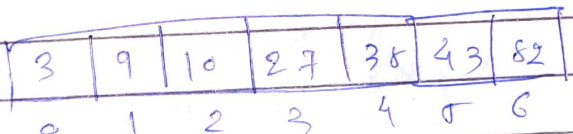
~~merg~~ last element

Step (17)



merge call

Step (18)



last merge call

Termination point :- last element where recussion stop with condition left > right

Ans (6) Input data = "MERGESORTEXAMPLE"