

DOUBLE ENDED QUEUE WORKING

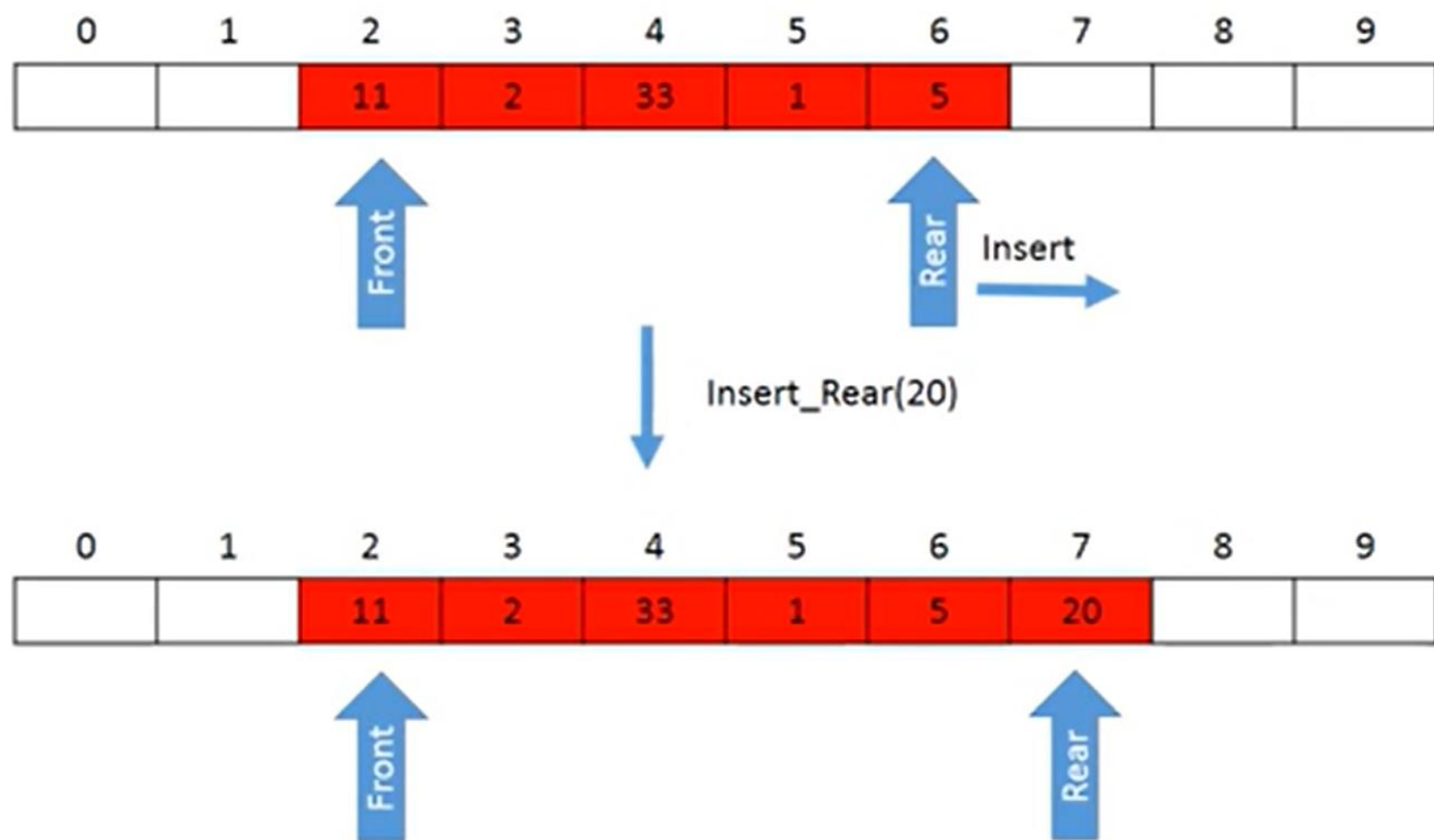
Functions of Double Ended Queue

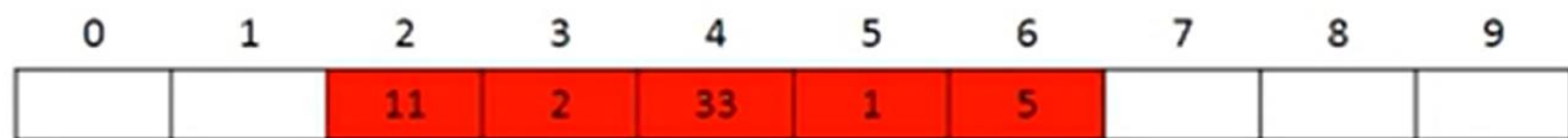


Four functions possible:

- Insertion at front
- Deletion at front
- Insertion at Rear
- Deletion at Rear

Cases of Double Ended Queue



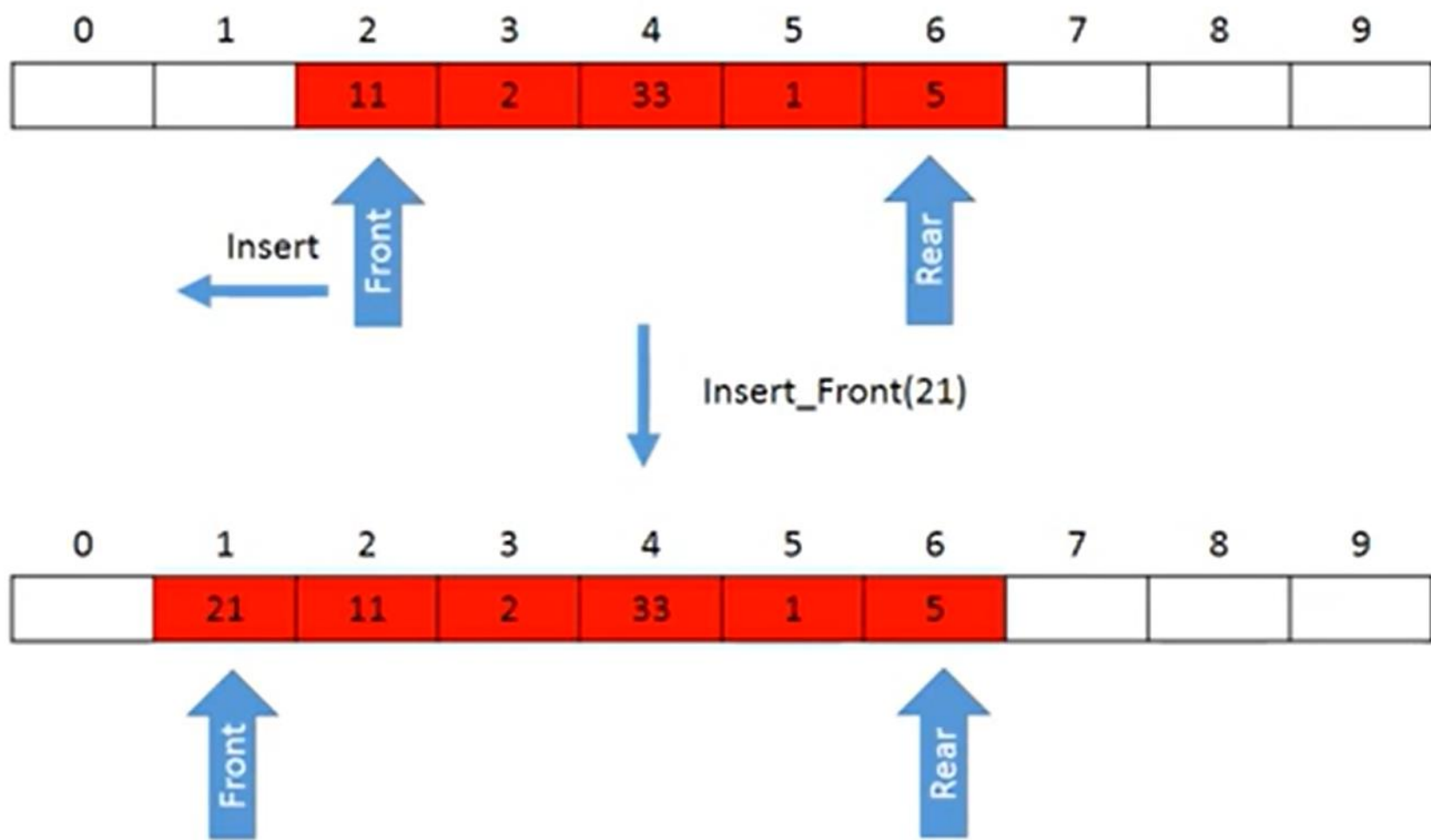


Delete

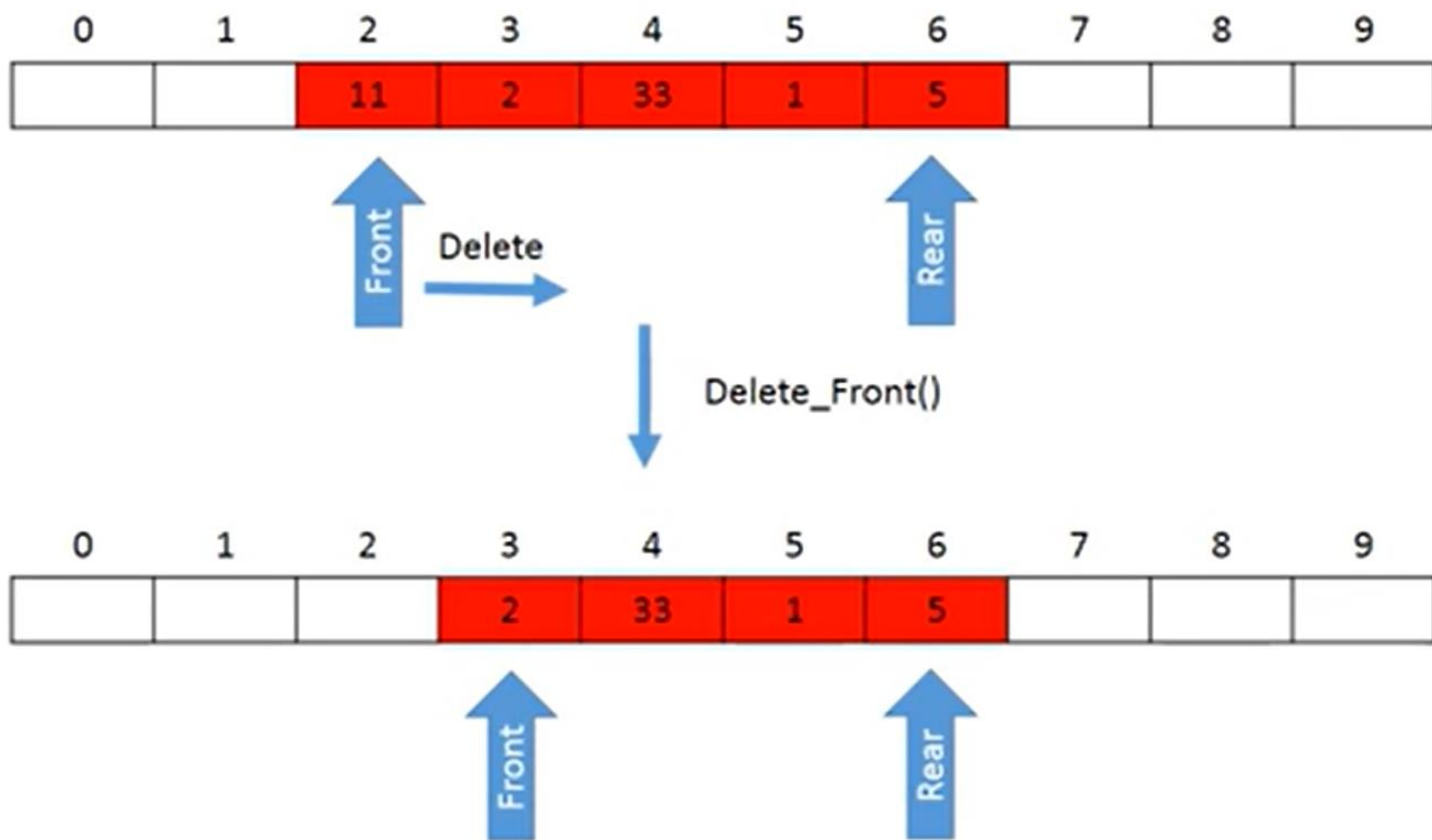
Delete_Rear()



Cases of Double Ended Queue

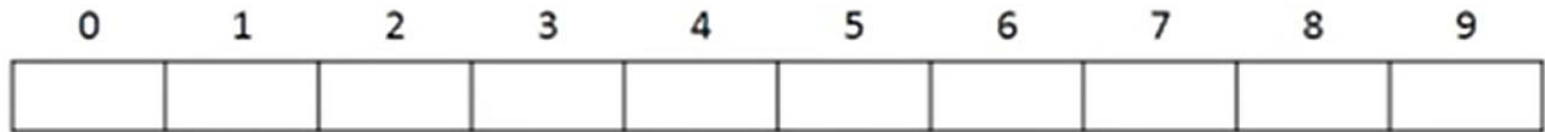


Cases of Double Ended Queue



Special cases
Initial Double Ended Queue : Empty situation
FIRST INSERTION

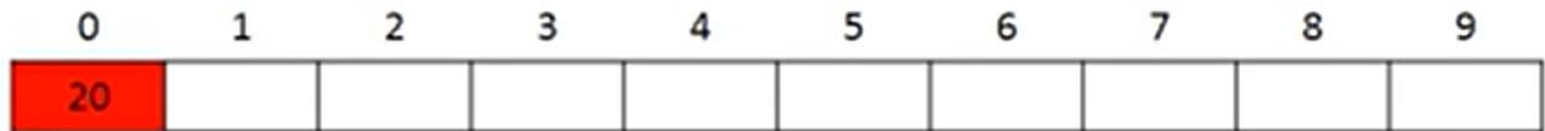
Cases of Double Ended Queue



$F = -1$
 $R = -1$



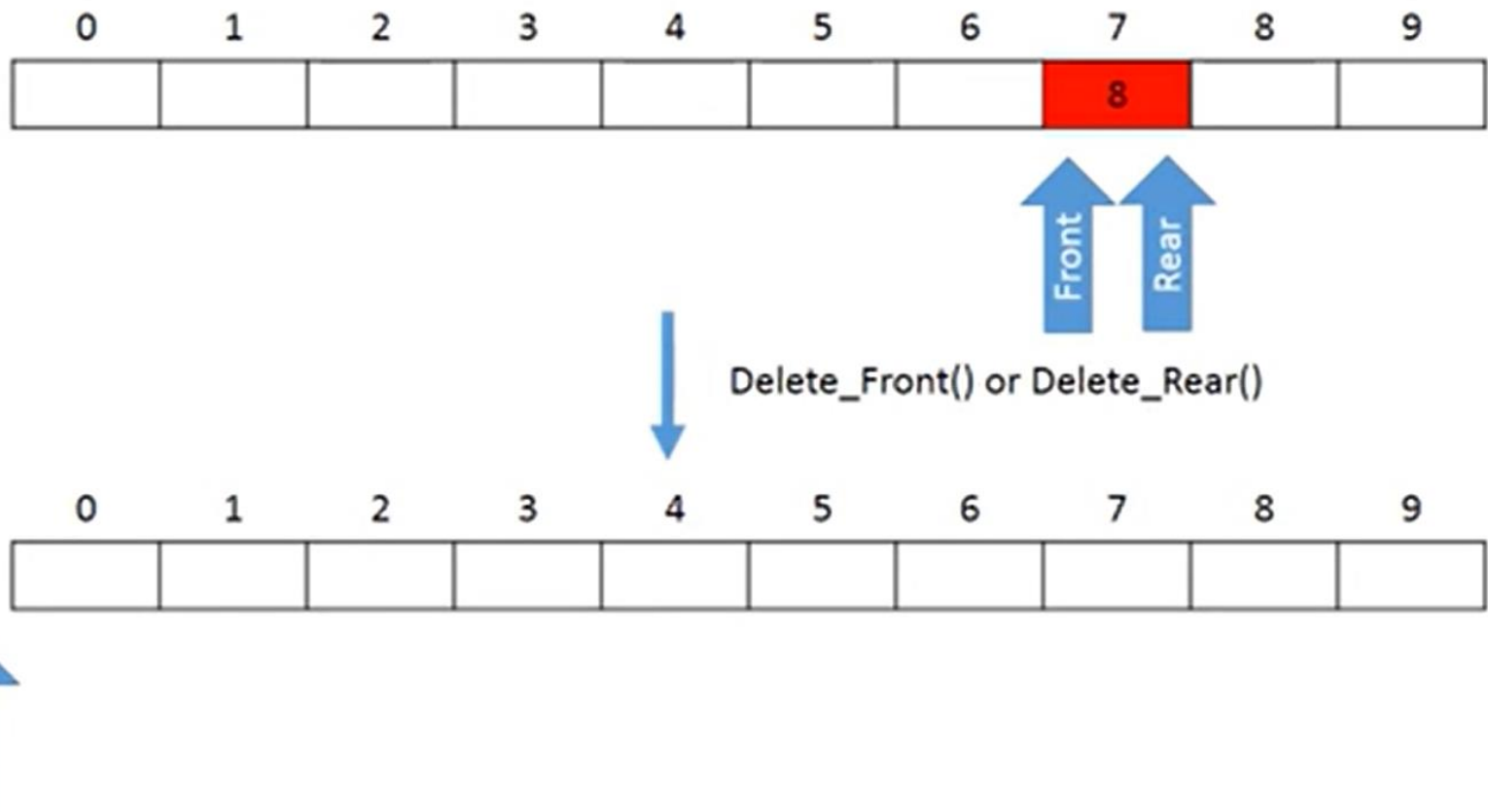
Insert_Rear(20) OR Insert_Front(20)



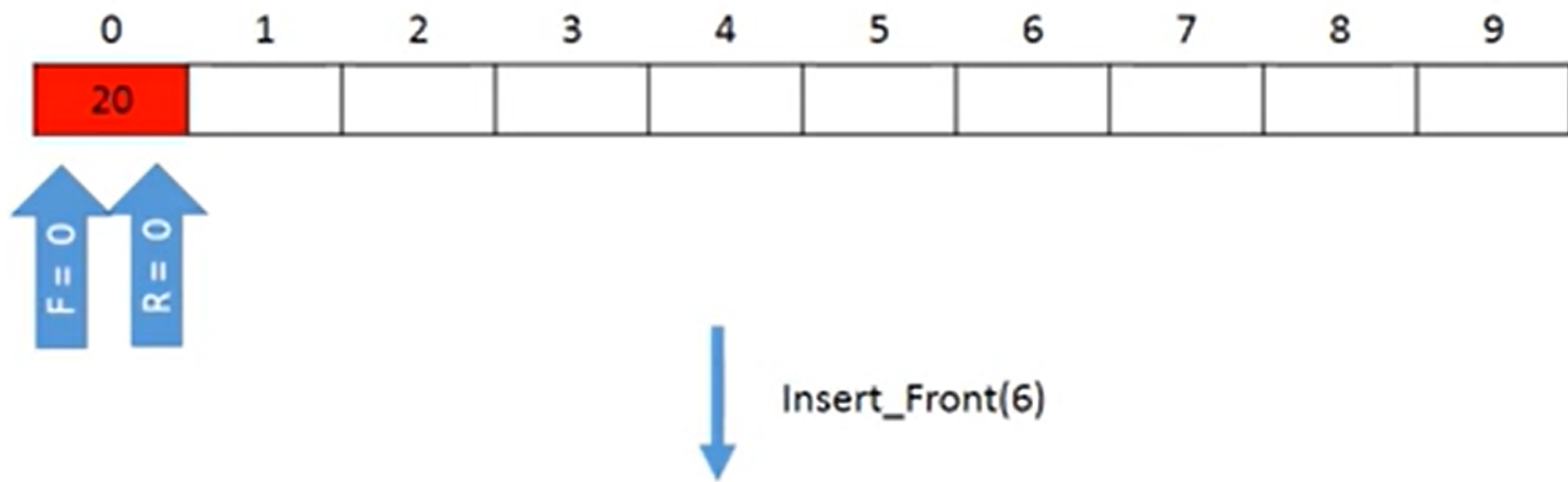
$F = 0$
 $R = 0$

Special cases
Double Ended Queue : Only one element left
LAST DELETION

Cases of Double Ended Queue

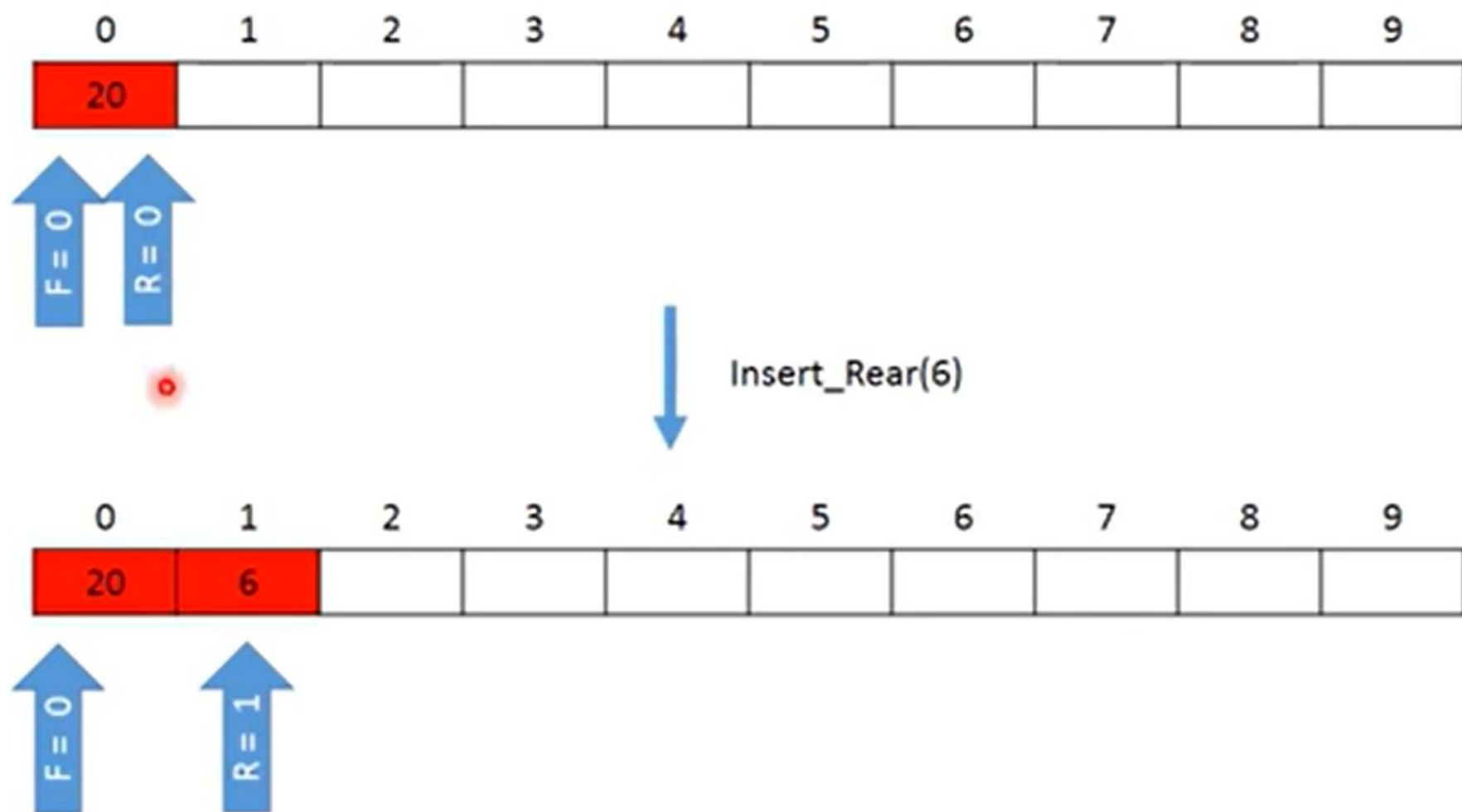


Cases of Double Ended Queue

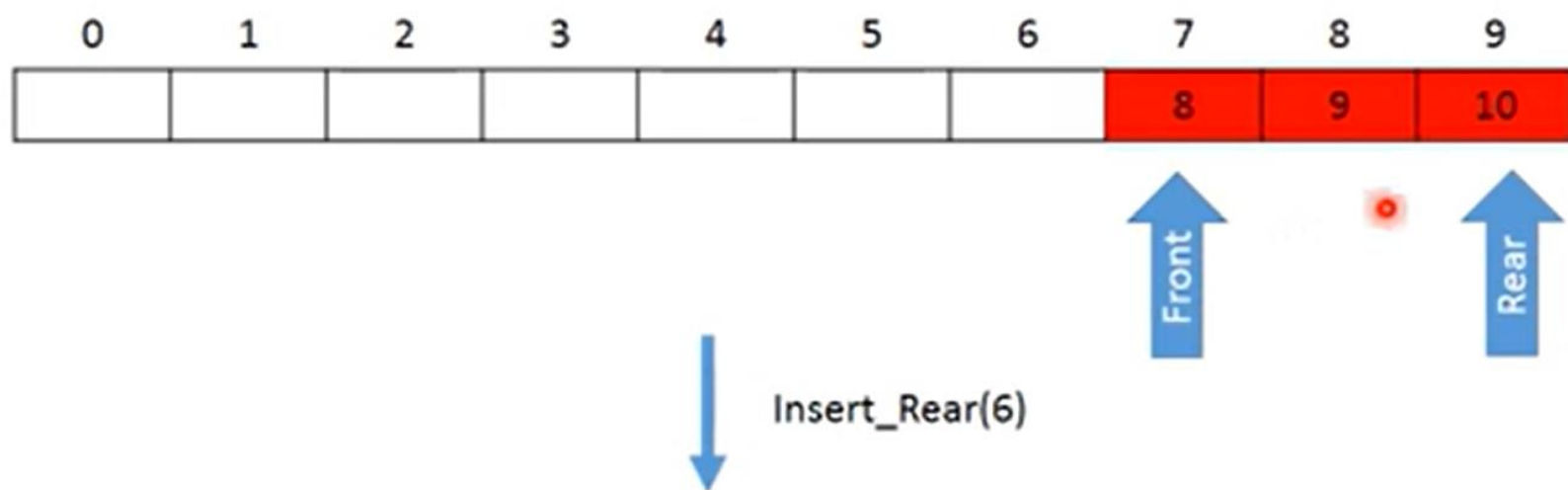


Can't insert at front if we are using simple queue and not circular queue.

Cases of Double Ended Queue



Cases of Double Ended Queue



Can't insert at Rear if we are using simple queue and not circular queue.

Cases of Double Ended Queue

