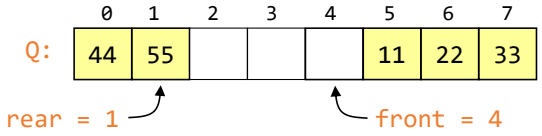
Exercise on queue

Consider the queue Q below and the array $A[9] = \{1, 4, 3, 5, 4, 6, 7, 8, 2\}$



Execute the sequence of operations on Q as dictated by the loop below. If an Enqueue() operation is attempted when the queue is full, skip such operation until the loop asks for a Dequeue() operation. If an Dequeue() operation is attempted when the queue is empty, skip such operation until the loop asks for an Enqueue() operation.

```
for (i = 0; i < 8; i++){
   if (A[i] ≤ A[i + 1]) Dequeue(Q);
   else Enqueue(Q,A[i]);
}
```

1. Write on your answer sheet the value of each entry of Q after the execution of all the above operations. Note, each time Dequeue(Q) is performed, replace the corresponding entry in queue Q by -1.

2. What is the final value of the pointers *rear* and *front*?