

## السؤال 1:

```
java
Copy code
ArrayQueue<int> queue = new ArrayQueue();
    int x, y;
        x = 4;
        y = 5;
            queue.enqueue(x);
            queue.enqueue(y);
            x = queue.front();
            queue.dequeue();
            queue.enqueue(x + 5);
            queue.enqueue(16);
            queue.enqueue(x);
            queue.enqueue(y - 3);
```

الإخراج: عناصر الصف: (Queue Elements)  
5, 9, 16, 4, 2

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## السؤال 2:

```
java
Copy code
linkedQueue<int> queue = new linkedQueue();
    queue.enqueue(10);
    queue.enqueue(20);
    cout << queue.front() << endl;
    queue.dequeue();
    queue.enqueue(2 * queue.back());
    queue.enqueue(queue.front());
    queue.enqueue(5);
    queue.enqueue(queue.back() - 2);

linkedQueue<int> tempQueue = new linkedQueue();
    tempQueue = queue;

    while (!tempQueue.isEmptyQueue()) {
        system.out.println(tempQueue.front());
        tempQueue.dequeue();
    }

    system.out.println(queue.front());
    system.out.println(queue.back());
```

## الإخراج:

10, 20, 40, 20, 5, 3

الـ front: 20

الـ back: 3

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### السؤال 3 :

مدخلات -999 : 14, 8, 14, 22, 64, 35, 19, 32, 7, 11, 13, 30,

#### الإخراج:

عناصر المكس: (Stack Elements)

64, 32, 30

عناصر الصف: (Queue Elements)

8, 22, 14

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### السؤال 4:

• بعد الإضافة:

◦ `queueRear = 0`

◦ `queueFront = 50`

• بعد الحذف:

◦ `queueRear = 99`

◦ `queueFront = 51`

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### السؤال 5:

• بعد الإضافة:

◦ `queueRear = 26`

◦ `queueFront = 99`

• بعد الحذف:

◦ `queueRear = 25`

◦ `queueFront = 0`

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### السؤال 6:

- بعد الإضافة:  
‘queueRear = 76 ◦  
queueFront = 25 ◦
  - بعد الحذف:  
‘queueRear = 75 ◦  
queueFront = 26 ◦
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### السؤال 7:

- بعد الإضافة:  
‘queueRear = 0 ◦  
queueFront = 99 ◦
  - بعد الحذف:  
‘queueRear = 99 ◦  
queueFront = 0 ◦
- 

### السؤال 8:

```
java  
Copy code  
void reverseQueue(Queue<int> queue) {  
    Stack<int> stack = new Stack<>();  
    while (!queue.isEmpty()) {  
        stack.push(queue.dequeue());  
    }  
    while (!stack.isEmpty()) {  
        queue.enqueue(stack.pop());  
    }  
}
```

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السؤال 9:

الحجم الحالي للصف = 17

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السؤال 10:

القيم المرجعة 4, 7, 2, false, 9: