What is the output of the following program segment?

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() );**10,20,10,20,2,10**,**8**

Consider the following statements:

Array Queue<int> queue = new Array Queue();

int x, y;

Show what is output by the following segment of code:

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);

system.out.println( "Queue Elements: ");

while (!queue.isEmptyQueue())

{

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

queue.dequeue();

} queue Elements (**4,5,9,3,16,4,5,2)**

**Question3:**

**Stack Element =8**

**Stack Element =14**

**Queue Element =14**

**Queue Element =22**

**Queue Element =64**

**Queue Element =35**

**Queue Element =19**

**Queue Element =32**

**Stack Element =30**

**Stack Element =13**

**Stack Element =11**

**Queue Element :**

**7**

**Stack Element :**

**Stack Element :**

**Queue Element :**

**Question:4**

**queuefront=50**

**queuerear=0**

**queuefront=55**

**queuerear=77**

**Question:5**

**a/queuefront=99**

**queuerear=26**

**b/ queuefront=0**

**queuerear=26**

**Question:7**

**a/queuefront=99**

**queuerear=0**

**b/ queuefront=0**

**queuerear=99**

**Answer Question:8**

**def reverseQueue(queue):**

**stack = [] # Create an empty stack**

**# Transfer elements from the queue to the stack**

**while not queue.isEmpty():**

**stack.append(queue.dequeue())**

**# Transfer elements from the stack back to the queue (in reversed order)**

**while stack:**

**queue.enqueue(stack.pop())**

**Question:9**

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**Answer Question:9**

**1. addFirst(3) -.**

**2. addLast(8) - No return value.**

**3. addLast(9) -**

**4. addFirst(1) -**

**5. last() - Returns 9.**

**6. isEmpty() - Returns False.**

**7. addFirst(2) - No return value.**

**8. removeLast() - Returns 9.**

**9. addLast(7) - No return value.**

**10. first() - Returns 2.**

**11. last() - Returns 7.**

**12. addLast(4) - No return value.**

**13. size() - Returns 6.**

**14. removeFirst() - Returns 2.**

**15. removeFirst() - Returns 3.**