Queue Implemented with a Linked-List

Write a queue class, using a singly linked-list, that allows your queue to store type int. Your class should have the following methods:

Method Name	Return Type	Description
enque	none	removes the element at the front of the queue and returns it
deque	generic	inserts and element at the rear of the queue
isEmpty	boolean	returns true if the queue is empty, false otherwise
isFull	boolean	returns true if the queue is full, false otherwise
size	int	returns the number of elements in a queue

In your test class, create a queue and exercise all the methods.

The following code may be of help:

```
public class LinkedIntQueue
{
   private Node front, rear; // references for the ends of the queue
   private int count; // Node count, number of items in queue

   public LinkedIntQueue()
   {
      front = null;
      rear = null;
      count = 0;
   }

   public int deque()
   {
      int rv=0; // return value


      return rv;
   }

   public void enque(int d)
   {
      Node newNode = new Node(d);


   }

   public boolean isEmpty()
   {
     return front == null;
   }
```

```
   public boolean isFull()
   {
     return false;
   }


   private class Node
   {
      int data;
      Node next;

      public Node(int d)
      {
         data = d;
      }
   }// End class Node


   public static void main(String[] args)
   {
      //create a queue
      LinkedIntQueue iq = new LinkedIntQueue();
      iq.enque(22);
      iq.enque(1);
      iq.enque(94);

      System.out.println( iq.deque() );
   }

}
```