```
37
         }
 38
 39
          // remove the least recently added item - doesn't check for underflow
 40⊝
          public Item dequeue() throws RingBufferException {
              if (isEmpty()) { throw new RingBufferException("Ring buffer underflow"); }
Item item = a[first];
 41
 42
 43
              a[first] = null;
                                                   // to help with garbage collection
 44
 45
              first = (first + 1) % a.length; // wrap-around
 46
 48
△49
         public Iterator<Item> iterator() { return new RingBufferIterator(); }
 50
          // an iterator, doesn't implement remove() since it's optional
 51
         public class RingBufferIterator implements Iterator<Item> {
 52⊝
              private int i = 0;
 53
△54
              public boolean hasNext() { return i < N;</pre>
                                          throw new UnsupportedOperationException();
△55
              public void remove()
 56
△57⊝
              public Item next() {
 58
                  if (!hasNext()) throw new NoSuchElementException();
 59
                  return a[i++];
              }
 60
 61
         }
 62
 63 }
 64
📳 Problems 🏿 Javadoc 📵 Declaration 📮 Console 🏰 Git Staging 🔀 PIT Mutations 🛭 🔀 PIT Summary 🖺 Coverage

✓ SoftwareTesting_HW_2_mscore (1)

    exercise01.RingBuffer (1)

               🐞 46: mutated return of Object value for exercise01/RingBuffer::dequeue to ( if (x != null) null else throw new RuntimeException )

    SoftwareTesting_HW_2_mscore (20)

      🕸 29: negated conditional
               29: replaced return of integer sized value with (x == 0 ? 1 : 0)
               29: replaced return of integer sized value with (x == 0 ? 1 : 0)
               30: replaced return of integer sized value with (x == 0 ? 1 : 0)
               $ 33: negated conditional
               🐞 35: Replaced integer addition with subtraction
               🗱 35: Replaced integer modulus with multiplication
               🐞 36: Replaced integer addition with subtraction
               🏇 41: negated conditional
               🐞 44: Replaced integer subtraction with addition
               🏇 45: Replaced integer addition with subtraction
               🐞 45: Replaced integer modulus with multiplication
               🐞 49: mutated return of Object value for exercise01/RingBuffer::iterator to ( if (x != null) null else throw new RuntimeException )
         🐞 54: changed conditional boundary
               🏇 54: negated conditional
               54: replaced return of integer sized value with (x == 0 ? 1 : 0)
               54: replaced return of integer sized value with (x == 0 ? 1 : 0)
               🟇 58: negated conditional
               $ 59: Replaced integer addition with subtraction
               🏇 59: mutated return of Object value for exercise01/RingBuffer$RingBufferIterator::next to ( if (x != null) null else throw new RuntimeException )
```

Pit Test Coverage Report

Project Summary

Number of Classes	I	Line Coverage	Mutation Coverage		
1	100%	27/27	95%	20/21	

Breakdown by Package

Name	Number of Classes	Line Coverage		Mutation Coverage		
exercise01	1	100%	27/27	95%	20/21	

Report generated by \underline{PIT} 1.1.9