

```
50     public boolean add( AnyType x )
51     {
52         add( size( ), x );
53         return true;
54     }
55
56     public void add( int idx, AnyType x )
57     {
58         if( theItems.length == size( ) )
59             ensureCapacity( size( ) * 2 + 1 );
60         for( int i = theSize; i > idx; i-- )
61             theItems[ i ] = theItems[ i - 1 ];
62         theItems[ idx ] = x;
63
64         theSize++;
65     }
66
67     public AnyType remove( int idx )
68     {
69         AnyType removedItem = theItems[ idx ];
70         for( int i = idx; i < size( ) - 1; i++ )
71             theItems[ i ] = theItems[ i + 1 ];
72
73         theSize--;
74         return removedItem;
75     }
76
77     public java.util.Iterator<AnyType> iterator( )
78     { return new ArrayListIterator( ); }
79
80     private class ArrayListIterator implements java.util.Iterator<AnyType>
81     {
82         private int current = 0;
83
84         public boolean hasNext( )
85             { return current < size( ); }
86
87         public AnyType next( )
88         {
89             if( !hasNext( ) )
90                 throw new java.util.NoSuchElementException( );
91             return theItems[ current++ ];
92         }
93
94         public void remove( )
95             { MyArrayList.this.remove( --current ); }
96     }
97 }
```

图 3-16 MyArrayList 类(第二部分, 共两部分)