

```

public class List {
    int[] a;
    int lastItem;

    public List() {
        a = new int[10];
        lastItem = -1;
    }

    public void insertItem(int newItem, int location) {
        int i;

        if (lastItem + 1 == a.length) {
            int[] b = new int[2 * a.length];
            for (i = 0; i <= lastItem; i++) {
                b[i] = a[i];
            }
            a = b;
        }
        for (i = lastItem; i >= location; i--) {
            a[i + 1] = a[i];
        }
        a[location] = newItem;
        lastItem++;
    }
}

```