

```
package com.hello;
```

```
public class LongestIncreasingSubsequence
```

```
{
```

```
    static int max_ref;
```

```
    static int _lis(int arr[], int n)
```

```
    {
```

```
        if (n == 1)
```

```
        return 1;
```

```
        int res, max_ending_here = 1;
```

```
        for (int i = 1; i < n; i++)
```

```
        {
```

```
            res = _lis(arr, i);
```

```
            if (arr[i - 1] < arr[n - 1] && res + 1 > max_ending_here)
```

```
                max_ending_here = res + 1;
```

```
        }
```

```
        if (max_ref < max_ending_here)
```

```
        max_ref = max_ending_here;
```

```
        return max_ref;
```

```
    }
```

```
    static int lis(int arr[], int n)
```

```
    {
```

```
        max_ref = 1;
```

```
        _lis(arr, n);
```

```
        return max_ref;
```

```
    }
```

```
    public static void main(String args[])
```

```
    {
```

```
        int arr[] = { 10, 22, 9, 33, 21, 50, 41, 60 };
```

```
        int n = arr.length;
```

```
        System.out.println("Length of lis is" + lis(arr, n) + "\n");
```

```
    }
```

```
}
```