

The Digits class involves identifying and processing the digits of a non-negative integer.

Here is the declaration of the Digits class

```
import java.util.ArrayList;

class Digits
{
    private ArrayList<Integer> digitList;

    public Digits(int num)
    {

    }

    public boolean isStrictlyIncreasing()
    {

    }

}
```

The programmer will write the constructor for the Digits class. The constructor initializes and fills digitList with the digits from the non-negative integer num. The elements in digitList must be Integer objects representing single digits, and appear in the same order as the digits in num. Each of the following examples shows the declaration of a Digits object as initialized by the constructor.

```
Digits d1 = new Digits(15704);
```

d1:	digitList	1	5	7	0	4
		0	1	2	3	4

```
Digits d2 = new Digits(0);
```

d2:	digitList	0
		0

The programmer will also write the method isStrictlyIncreasing. The method returns true if the elements of digitList appear in strictly increasing order; otherwise, it returns false. A list is considered strictly increasing if each element after the first is greater than (but not equal to) the preceding element. Here a

The following table shows the results of several calls to isStrictlyIncreasing

Method call	Value returned
<code>new Digits(7).isStrictlyIncreasing();</code>	<b>true</b>
<code>new Digits(1356).isStrictlyIncreasing();</code>	<b>true</b>
<code>new Digits(1336).isStrictlyIncreasing();</code>	<b>false</b>
<code>new Digits(1536).isStrictlyIncreasing();</code>	<b>false</b>
<code>new Digits(65310).isStrictlyIncreasing();</code>	<b>false</b>

Use the following DigitsDriver.java

```
import java.io.*;
import java.util.Scanner;
import static java.lang.System.*;

public class DigitsDriver {
    public static void main(String args[]) throws IOException
    {
        Scanner input = new Scanner(new File("Digits.txt"));
        while(input.hasNext()){
            int k = input.nextInt();
            Digits x = new Digits(k);
            out.println(k+" isStrictlyIncreasing? "
                        +x.isStrictlyIncreasing());
        }
    }
}
```

Here is a sample of the Digits.txt

```
15704
0
7
1356
1336
1536
65310
```

Here is the sample output

```
15704 isStrictlyIncreasing? false
0 isStrictlyIncreasing? true
7 isStrictlyIncreasing? true
1356 isStrictlyIncreasing? true
1336 isStrictlyIncreasing? false
1536 isStrictlyIncreasing? false
65310 isStrictlyIncreasing? false
```