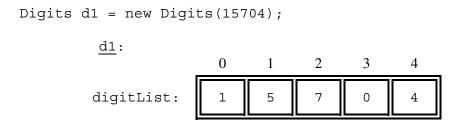
1. This question involves identifying and processing the digits of a non-negative integer. The declaration of the Digits class is shown below. You will write the constructor and one method for the Digits class.

Part (a) begins on page 4.

(a) 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 and the contents of digitList as initialized by the constructor.

Example 1



Example 2

```
Digits d2 = new Digits(0); \frac{d2}{0} digitList: 0
```

WRITE YOUR SOLUTION ON THE NEXT PAGE.

Complete the Digits constructor below.

```
/** Constructs a Digits object that represents num.
    * Precondition: num >= 0
    */
public Digits(int num)
```

Part (b) begins on page 6.

(b) Write the Digits 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.

The following table shows the results of several calls to ${\tt isStrictlyIncreasing}$.

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

WRITE YOUR SOLUTION ON THE NEXT PAGE.

Complete method isStrictlyIncreasing below.

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