1. Take an input n. Print the triangular pattern shown below using the value of n. (Output samples are shown below)

n = 1	n = 2	n = 3	n = 4	n = 5

<pre>*</pre>	<pre> *
	**
	 *</pre>
		<pre> *
		 **
		***
		 **
		  *</pre>
			<pre> *
			  **
			 ***
			****
			 ***
			  **
			   *</pre>
				<pre> *
				   **
				  ***
				 ****
				*****
				 ****
				  ***
				   **
				    *</pre>

[Observe and compare the values of n with corresponding outputs to understand the pattern.]

2. Take an input n. Print a diamond pattern using the value of n. (Output samples are shown below)

n = 1	n = 2	n = 3	n = 4	n = 5

<pre>*</pre>	<pre> *
	* *
	 *</pre>
		<pre> *
		 * *
		* *
		 * *
		  *</pre>
			<pre> *
			  * *
			 * *
			* *
			 * *
			  * *
			   *</pre>
				<pre> *
				   * *
				  * *
				 * *
				* *
				 * *
				  * *
				   * *
				    *</pre>

[Observe and compare the values of n with corresponding outputs to understand the pattern.]

3. Print the first 100 fibonacci numbers.

   To know more about fibonacci series:
   https://www.mathsisfun.com/numbers/fibonacci-sequence.html

   First 10 numbers: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34 …

4. Solve the following problem:

Given an integer `num`, repeatedly add all its digits until the result has only one digit, and return it.

Example 1:

```
Input: num = 38
Output: 2
Explanation: The process is
38 --> 3 + 8 --> 11
11 --> 1 + 1 --> 2
Since 2 has only one digit, return it.
```

Example 2:

```
Input: num = 0
Output: 0
```