Lesson on Simple Methods in Java

A **method** is a piece of code that has a name and can be used many times in the program.

The following method has the function of issuing a warning.

```java
public static void outputWarning()
{
    System.out.println ("**********************************");
    System.out.println ("*                                *");
    System.out.println ("*  Input entered is not correct  *");
    System.out.println ("*  Please enter a correct input  *");
    System.out.println ("*                                *");
    System.out.println ("**********************************");
}
```

When a method is written down (as above), this is called a **method declaration** or **method definition**.

When a method is used, this is called a **method call**.

The following method displays a random number from 1 to 10.

```java
public static void randomNum ()
{
    int rand = (int)(Math.random() * 10) + 1;
    System.out.println (rand);
}
```

Therefore, suppose we need a program to do the following (the program is just an example for demonstration purposes):

1) Displays a random number from 1 to 10
2) Displays another random number from 1 to 10
3) Displays the warning message above
4) Displays another random number from 1 to 10
5) Displays the warning message again
6) Displays another random number from 1 to 10

the program will look as the one below.

	Class that makes use of methods
1	public class Methods
2	{
3	public static void main (String[] args)
4	{
5	randomNum();
6	randomNum();
7	outputWarning();
8	randomNum();
9	outputWarning();
10	randomNum();
11	}
12	
13	public static void outputWarning()
14	{
15	System.out.println ("********************************");
16	System.out.println ("* *");
17	System.out.println ("* Input entered is not correct *");
18	System.out.println ("* Please enter a correct input *");
19	System.out.println ("* *");
20	System.out.println ("********************************");
21	}
22	
23	public static void randomNum ()
24	{
25	int rand = (int)(Math.random() * 10) + 1;
26	System.out.println (rand);
27	}
28	}

Note that:

- From lines 5 to 10 there are six method calls.
- Lines 13 to 21 show the method declaration of the method outputWarning.

Exercise:

Write a class called ForMethods with three methods as described here:

1) A method called FourStars that simply displays the string "****".
2) A method called SevenStars that simply displays the string "*******".
3) A method called 'main' that performs the following:
   a. Displays four stars in a line
   b. Displays seven stars in a line
   c. Displays four stars in a line
   d. Displays seven stars in a line
   e. Displays four stars in a line