

## **Exercises – Basics 1.1**

1. Write a program that gets numbers from the user until they enter zero then tells the user the average of all the numbers, the largest number entered, the smallest number entered.  
**Save as BasicEx1.java.**
2. Write a program to find the sum of a number of terms of an infinite series  
 $1 + x + x^{**2} + x^{**3} + x^{**4} + \dots$   
where the user enters the number of terms to be used and what x is.  
**Save as BasicEx2.java.**
3. Ask the user for an integer between 1 and 50 and output all of the factors of that integer.  
**Save as BasicEx3.java.**
4. Write a program that computes the factorial of a given number. Factorials are used in statistics to determine the probability of events. The “!” is used as the factorial symbol. Some Examples:  
5!        = 5 \* 4 \* 3 \* 2 \* 1  
          = 120  
6!        = 6 \* 5 \* 4 \* 3 \* 2 \* 1  
          = 720  
  
Write a program that asks the user for a number and computes the factorial of that number.  
**Save as BasicEx5.java.**