1. Write the following functions (each having three parameters being positive integer numbers):

- isTriangle – checking whether the three numbers it obtains as the parameters can be sides of a triangle,
- perimeter – computing the perimeter of a triangle with the sides given as the parameters,
- area – calculating the area of a triangle whose sides are given as the parameters, using the Heron's formula and the above function computing the perimeter.

Write a program which reads triples (as many as the user wants) of positive integer values and for the each triple checks whether the values can be lenghts of a triangle (using the function isTriangle) and if so, computes (using the remaining two functions) and prints the perimeter and the area of the triangle.
An example: values 3,5,4 can be lengths of a triangle with the perimeter 12 and the area 6, but values 3,2,1 cannot.

2. Write the following functions operating on arrays of integers:

- get – reading the contents of the array given as a parameter,
- print – printing the contents of the array given as a parameter,
- avg – calculating the arithmetic mean of the values in the array,
- min – calculating the smallest value in the array,
- max – calculating the greatest value in the array,
- reverse – reversing the order of the values in the array.

Write a program which creates dynamically (after reading the value N being a positive integer) an array of N integers. The program reads the values to be stored in the array, prints the array, and then using the above functions calculates and prints the arithmetic mean of the values in the array, the smallest and the greatest value in the array and finally prints the reversed array.
An example: for the 5-element array containng the values 1,7,-2,3,0 the arithmetic mean is 1.8, the smallest value equals -2, the greatest value is 7, and the reversed array is 0,3,-2,7,1.

3. Write the following functions operating on square matrices (2-dimensional arrays) of real numbers:

- get – reading the content of a matrix given as its parameter,
- print – printing the content of a matrix given as a parameter,
- sum – calculating a matrix being the sum of the two matrices given as its parameters,
- product – calculating a matrix being the product of the two matrices given as its parameters.

Write a program which creates dynamically (after reading the value N being a positive integer) two NxN square matrices of real values. The program (using the above functions) reads the values to be stored in the matrices, prints them, and then calculates and prints matrices beeing the sum and the product of the given ones.
An example: for 2x2 matrices:

```
1 2     1 2     2 4              1 2     1 2     7  10
    +       =                        *       =
3 4     3 4     6 8              3 4     3 4     15 22
```