**Python - practice number 4**

1. Write a program to calculate assembly. An assembly of a certain integer is the multiplication of all numbers starting from 1 up to the number itself. For example, an array of 3 will return 1\*2\*3 = 6. Take a number and calculate the sum of all the numbers up to the sum of the number. Each calculation is in a separate line.

Running example:

please enter a number to calculate factorial 5

1 1

2 2

3 6

4 24

5 120

1. Write a program that prints all combinations of numbers that can be obtained by rolling two dice. As follows (line by line): (1,6) . . . (1,1)

(2,6). . . (2,1)

. . .

(6,6). . . (6,1)

1. Write a program that receives in a loop 7 whole three-digit numbers. For each number, the program will check and display as output the entered number, only if all its digits are different from each other.

(\* make sure that the numbers entered are three-digit, so that the program will check exactly 7 three-digit numbers)

1. In a token game, a player places 2 tokens in the first turn, 4 tokens in the second turn, 8 tokens in the third turn, and so on - in each turn twice the number of tokens from the turn before it. Write a program that will receive the player's initial number of tokens, and its output is the serial number of the turn in which it is not possible to continue playing according to the described method (for example, for an initial number of tokens of 9, the required output is 3, since after placing 2 tokens in the first turn and 4 Additional tokens in the second turn will give the player only 3 tokens (and not 8 as required) for the third turn.

The output will look like this: (example output)

Please enter number of tokens

9

Total number of tokens Tokens Per Turn Turn No.

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9 2 1

7 4 2

last turn, turn no. 3

1. A program must be written that accepts pairs of integers as input until a pair of numbers is received in which one of the numbers is even and the other is odd. The algorithm displays as output the pair of numbers whose sum is the largest and the number of pairs that were recorded (do not refer to the data of the last pair - it is a sign of the end of data).

**for example:**For the input (from left to right): 5 8 4 2 5 7 3 1

Will be printed: 5 7The couple whose sum is the biggest:

3number of couples:

**Remarks:**

* Input checks must be performed where there is an asterisk (\*).
* The input and output must be accompanied by text explaining the printed data.
* Variables must be given meaningful names.

Nice work