

In each exercise make your source code and output readable.

Exercise 1. Write a program that reads a positive integer M , and outputs the information how many positive consecutive integers should be added to obtain the smallest sum greater than M . For example, the smallest sum greater than 10 is 15 and is obtained by the addition of 5 consecutive positive integers.

Exercise 2. Write a program that computes the sum of the digits of a nonnegative integer. Integer should be given by the user, do not accept values less than 0. For example, the sum of digits of 1234 is $1+2+3+4 = 10$. Let us observe that $123\%10$ evaluates to 3 and $123/10$ evaluates to 12.

Exercise 3. Write a program that reads a positive at most 6-digit integer and then checks whether all digits are equal.

Exercise 4. Write a program that computes the greatest common divisor and the smallest common multiple (the least common multiple) of two positive integers. For example GCD for 21 and 15 equals 3 and SCM of 21 and 15 is 105

Exercise 5. Write a program that reads a positive at most 5-digit integer, and creates a new integer by adding one more digit at the end. The last digit so-called checksum is the remainder in division by 10 of the sum of the digits of the integer given by the user. For example from 123 we should get 1236, from 88 we should get 886.

Exercise 6. Write a program that reads a positive integer, and outputs a new integer such that each digit from original integer is incremented, except for 9 that should be replaced by 0, e.g. from 1598 one should get 2609.