

## Lab 4.2.1 Range of integer types

### Objectives

Familiarize the student with:

- the limitations of C++ standard integer types.

### Scenario

Write a program that, given a number N, will calculate the sum of all numbers in the range [1..N].

Your program must give correct results for N up to 100,000.

#### Example input

5

#### Example output

15

#### Example input

124

#### Example output

7750

#### Example input

100000

#### Example output

50005000