* The **#include** line at the beginning of the code is a feature of the g++ compiler that allows us to include the entire standard library.
* The **using** line declares that the classes and functions of the standard library

can be used directly in the code.

g++ -std=c++11 -O2 -Wall test.cpp -o test

* This command produces a binary file test from the source code test.cpp. The compiler follows the C++11 standard (-std=c++11), optimizes the code (-O2) and shows warnings about possible errors (-Wall).
* The following lines at the beginning of the code make input and output more efficient:
* ios::sync\_with\_stdio(0);
* cin.tie(0);
* Note that the newline "\n" works faster than endl, because endl always causes a flush operation
* Sometimes the program should read a whole line from the input, possibly containing spaces. This can be accomplished by using the getline function:

string s;

getline(cin, s);

* it is good to know that the g++ compiler also provides a 128-bit type \_\_int128\_t with a value range of -2^127 ...2^127-1 or about -10^38 ...10^38. However, this type is not available in all contest systems.