Homework

Digit Sum 3

The program's input is a three-digit number (do not check that fact, just assume it to be true). Output the sum of its digits.

Sample Input	Sample Output
151	7
787	22
202	4

Area of a right triangle

The input of the program consists of two integers: the legs of a right triangle. Output the triangle's area.

Sample Input	Sample Output
4 5	10.0
4 4	8.0
5 5	12.5

Arithmetic Progression

The program input consists of 3 integer numbers: a1, a2 and n. a1 and a2 are the first two members of arithmetic progression. Output the value of the n-th member.

2 4 3	6
3 3 1500	3
9 4 2	4

Century from year

Given a year, return the century it is in. The first century spans from the year 1 up to and including the year 100, the second - from the year 101 up to and including the year 200, etc.

Sample Input	Sample Output
1905	20
1700	17
1988	20
2000	20
2001	21
200	2
374	4
45	1

Two men

Two men start to shoot several cans of Coca-Cola they have put on a log. The first man began shooting the cans in order, starting with the leftmost, the second man from the rightmost. At some point, they simultaneously shot the same last can. And at this point they stop.

You are given the number of cans the first man has shot, and the number of cans the second man has shot. Output the number of cans the first man missed because of the second man, and the number of cans the second man missed because of the first man.

Sample Input	Sample Output
4 7	6 3

Knight's Possible Moves

You are given the coordinates of a cell on a standard chess board: py and px. It is guaranteed that the coordinates are correct, i.e. are integers from the interval [1,8]. Output all cells that the knight can move in a single move(each coordinate pair on separate line). It is guaranteed that for a given input cell all 8 moves exist. The output cells order does not matter.

Sample Input	Sample Output
6 4	5 2 7 2 4 3 4 5 5 6 7 6 8 3 8 5