

G. Mysterious numbers - 2

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Input
The only line of input contains three integers a_1, a_2, a_3 ($1 \leq a_1, a_2, a_3 \leq 20$), separated by spaces.

Output
Output a single integer.

Examples

input
2 3 2
output
5

input
13 14 1
output
14

input
14 5 9
output
464

input
17 18 3
output
53