Golden Alleyway

Input file: standard input
Output file: standard output

Time limit: 1 second

Memory limit: 1024 megabytes

Please refer to the statements in the attachment files

Input

Please refer to the statements in the attachment files

Output

Please refer to the statements in the attachment files

Examples

standard input	standard output
3 2 1 2	7000
1 0 0 4	6000

Note

Please refer to the statements in the attachment files