Value of bit

Input file: standard input Output file: standard output

Time limit: 2 seconds Memory limit: 64 megabytes

Input

Given integer number n and i.

Output

Output value of i - th bit of the number n, that is 0 or 1.

Examples

standard input	standard output
179 0	1
4242 13	0
3086 28	0
9226 19	0
8071 2	1
2910 11	1