

J. Sequence strikes back! (16 Mb, 1 sec)

Hacker Kirill once saw two numeric sequences written on a fence: 8, 9, 10, 11 and 4, 3, 2, 1. While examining the numbers he noticed that each number from the first sequence is divisible by a corresponding number from the second one: 8 is divisible by 4, 9 is divisible by 3 and so on. Having found this interesting fact, Kirill went on to look for a sequence of nonnegative numbers $X, X+1, \dots, X+N-1$, such that X would be divisible by N , $X+1$ would be divisible by $N-1, \dots, X+N-1$ would be divisible by 1, with the smallest possible X .

Help Kirill and write a program to find X for given N .

Limitations

$1 \leq N \leq 40$

Input

The first line of the input file contains a single integer N .

Output

The output file should contain a single number, X .

Sample Input	Sample Output
4	8



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