102. Coprimes

time limit per test: 0.25 sec.
memory limit per test: 4096 KB

For given integer N ($1<=N<=10^4$) find amount of positive numbers not greater than N that coprime with N. Let us call two positive integers (say, A and B, for example) coprime if (and only if) their greatest common divisor is 1. (i.e. A and B are coprime iff gcd(A,B) = 1).

Input

Input file contains integer N.

Output

Write answer in output file.

Sample Input

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Sample Output

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