Rational Order

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Consider the set of all reduced rational numbers between 0 and 1 inclusive with denominators less than or equal to N. Here is the set when $N = 5$:

$$\frac{0}{1}, \frac{1}{5}, \frac{1}{4}, \frac{1}{3}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{1}{1}$$

Note that, for $N = 5$, there is a total of 11 reduced rational numbers found between 0 and 1 with denominators no more than 5.

Given a positive integer N, your task is to write a program that calculates all the reduced rational numbers between 0 and 1 inclusive with denominators less than or equal to N. Output only the total number of rational numbers found.

Input

Input consists of a single integer N.

Output

Output a single integer, giving the total number of rational numbers found.

Examples

standard input	standard output
4	7
5	11