PASCAL

Little Frane is already in tenth grade, but is still struggling with Pascal in computer class. For homework, his teacher wrote the following program into his notebook, and he needs to determine the output, given the integer N.

```
readln(N);
counter := 0;
for i := N-1 downto 1 do begin
    counter := counter + 1;
 if N mod i = 0 then break;
end;
writeln(counter);
```

Write a program which solves Frane's problem.

Input

The first line of input contains the integer N (1 ≤ N ≤ 10^9).

Output

Output the result on a single line.

Example

Input:	Input:	Input:
1	10	27

Output:	Output:	Output:
0	5	18