Prime Number
Problem ID: a03p07primenumber

A prime number is a whole number greater than 1 whose only factors are 1 and itself.

Advanced hint: To speed up your program you can make use of the fact that divisors come in pairs. That is if an integer i divides an integer n, then $\frac{n}{i}$ also divides n. Also note that as i becomes larger, $\frac{n}{i}$ becomes smaller.

Input

Input consists of one line containing one integer n, where $1 \leq n \leq 10^6$.

Output

Output `prime` if n is prime, otherwise output `not prime`.

Sample Input 1	Sample Output 1
1	not prime

Sample Input 2	Sample Output 2
2	prime

Sample Input 3	Sample Output 3
6	not prime

Sample Input 4	Sample Output 4
7	prime

Sample Input 5	Sample Output 5
13	prime

Sample Input 6	Sample Output 6
23	prime

Sample Input 7	Sample Output 7
25	not prime