A circular prime is a prime number that remains prime as each leftmost digit (most significant digit), in turn, is moved to the right hand side. For instance, the number 19937 is a circular prime, since all numbers in the sequence 19937, 99371, 93719, 37199 and 71993 are prime numbers. Your objective is to write a program that, given a range, computes the number of circular primes in that range.

Input

The input consists of a sequence of pairs of integers i and j, with one pair of integers per input line. All integers will be less than 1,000,000 and greater or equal to 100. You can assume that in any pair i is lesser or equal than j. You should process all pairs of integers, and for each such pair, count the number of circular primes between i and j, including i and j. Input is terminated by a line just with the number '`-1`'.

Output

For each pair of input integers, defining a range, the output should be: '`No Circular Primes.`' (if there are no circular primes in the range), '`1 Circular Prime.`' (if only one circular prime exists in the range), or 'n `Circular Primes.`' (if there are n circular primes in the range, and n is greater than one).

Sample Input

```
1000 1100
100 120
100 1000
-1
```

Sample Output

```
No Circular Primes.
1 Circular Prime.
12 Circular Primes.
```