

Base Palindrome

Input File: palindrome2.txt

You have been given a list of numbers and your boss wants you to determine which of these numbers are palindromes. However, there's a catch - your boss wants you to check if these numbers are palindromes in multiple different bases. Given a list of numbers in base-10, determine a list of in which bases each number is a palindrome (from bases 2-20).

Input:

The first row contains an integer N, followed by N sets of input. In each input, the line contains one positive integer in base-10 format.

Output:

For each line, you must print the different bases in which the number is a palindrome (from bases 2-20). The format will be the different bases separated by commas, with a new line for every new input you are testing. If there is no palindrome for any base, simply print "None". The integer input value will always be less than one billion.

Example Input:

```
5
10
86
717
87
829100
```

Example Output:

```
3, 4, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
6
2, 10, 14
None
16
```