Project Euler #63: Powerful digit counts

Problem Statement

This problem is a programming version of Problem 63 from projecteuler.net

The $5-digit$ number, $16807=7^5$, is also a fifth power. Similarly, the 9-digit number, $134217728=8^9$, is a ninth power.

Given N, print the $N-digit$ positive integers which are also an N^{th} power?

Input Format
Input contains an integer N

Output Format
Print the answer corresponding to the test case.

Constraints
$1 \leq N \leq 19$

Sample Input

```
2
```

Sample Output

```
16
25
36
49
64
81
```