

N Digit Prefix Composites

We define an n digit prefix composite as follows: A number with n digits (no leading digit 0 allowed) such that the prefix of k digits of the number is divisible by k. Thus, 14125 is a 5th degree prefix composite because 1 is divisible by 1, 14 is divisible by 2, 141 is divisible by 3, 1412 is divisible by 4 and 14125 is divisible by 5.

The Problem

Given an input value n, print a list of all n digit prefix composites in numerical order.

The Input

The first line of the input file will contain a single positive integer, T ($T < 10$), representing the number of test cases. Each test case will be on a line by itself, with a single integer, N ($N < 10$), the input size for that case.

The Output

For each case, output each prefix composite of the desired length, in numerical order, one per line.

Sample Input

```
1
1
```

Sample Output

```
1
2
3
4
5
6
7
8
9
```