

Harshad Generator

An Harshad Number is a natural number divisible by the sum of its digits. Your task is to write a function that takes in input a number N and generate the first N Harshad numbers

Example:

Number 24 is composed by 2 and 4, their sum is $2+4=6$

24 is divisible by 6, so it is an Harshad Number.

The first 100 Harshad Numbers are:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 18, 20, 21, 24, 27, 30, 36, 40, 42, 45, 48, 50, 54, 60, 63, 70, 72, 80, 81, 84, 90, 100.

Input

The first line contains a number N.

Output

The first line contains all N Harshad numbers followed by " " (space).

Sample input

Sample output

1	1
110	1 2 3 4 5 6 7 8 9 10 12 18 20 21 24 27 30 36 40 42 45 48 50 54 60 63 70 72 80 81 84 90 100 102 108 110
100	1 2 3 4 5 6 7 8 9 10 12 18 20 21 24 27 30 36 40 42 45 48 50 54 60 63 70 72 80 81 84 90 100