Prison Cells

In a prison there are 100 guards and 100 prison cells. Simulate the next task.

The 1st guard opens all the doors. The 2nd guard closes every 2nd door.

The 3rd guard closes every 3rd door if it's open, or opens it if it's closed.

The rest of the guards act in a similar way(to the above logic).

The question is which cell doors are open after the Nth guard went through the doors.

Input:

U can use cin to get the N number(nuber of the Nth guard).

Output:

Print out to the standard output the numbers of the open cell doors after the Nth guard went through the doors.

Example input

N=100

N=90

Example output

1 4 9 16 25 36 49 64 81 100

1 4 9 16 25 36 49 64 81 91 92 93 94 95 96 97 98 99