Loops

Loops are control structures that iterate over a range to perform a certain task.

There are two kinds of loops in Python.

A *for* loop:

```
for i in range(0,5):
    print i
```

And a *while* loop:

```
i = 0
while i < 5:
    print i
    i+=1
```

Here, the term `range(0,5)` returns a list of integers from 0 to 5: $[0, 1, 2, 3, 4]$.

Task

Read an integer N. For all non-negative integers $i < N$, print i^2. See the sample for details.

Input Format
The first and only line contains the integer, N.

Constraints
$1 \leq N \leq 20$

Output Format
Print N lines, one corresponding to each i.

Sample Input

```
5
```

Sample Output

```
0
1
4
9
16
```