

Lab5: function

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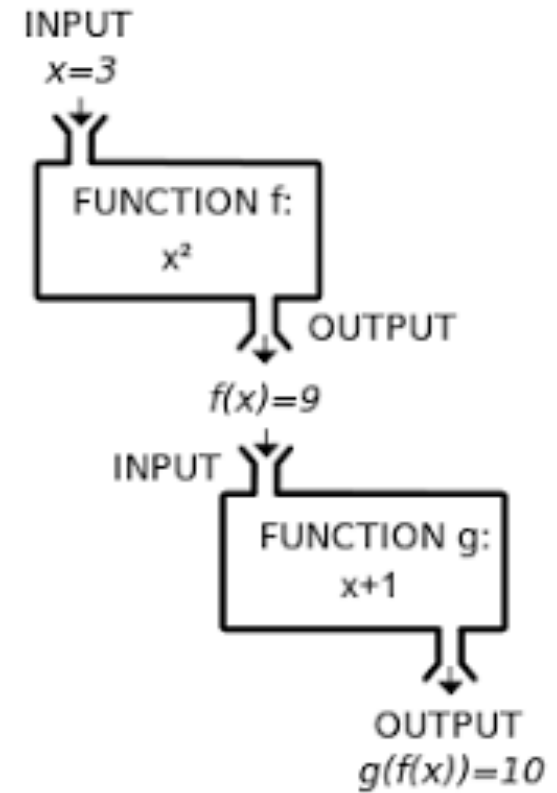
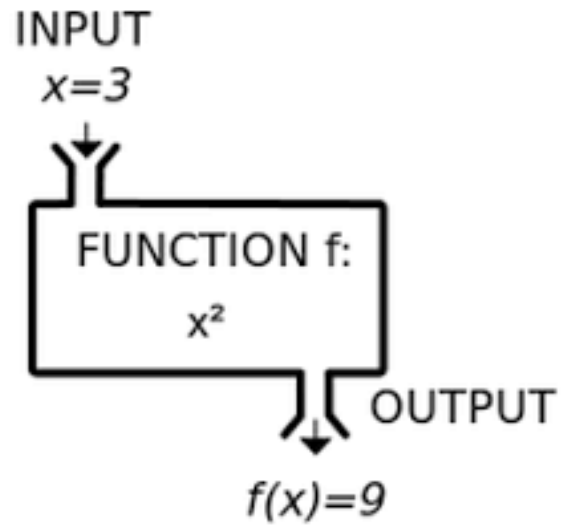
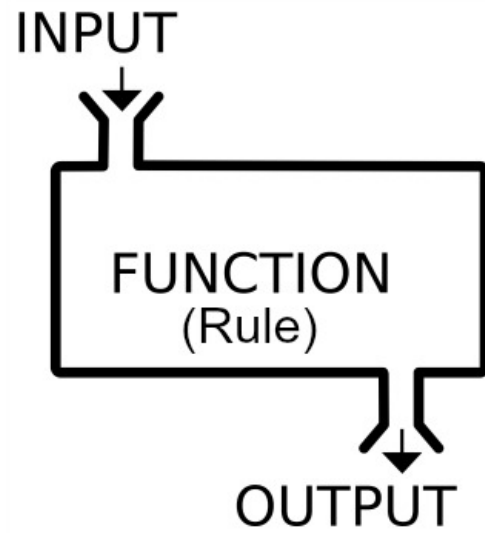


Vim key bindings

~/.vimrc

```
set nu  
imap jj <ESC>
```

Function



Use function in counting last digit

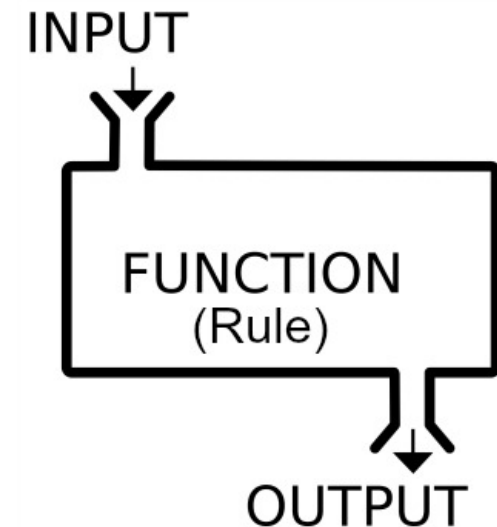
Input: `std::cin >> N`

Output: The number of 3s as **last** digit in all numbers from 0 to N

ex: N = 33, output: 4 (3, 13, 23, 33)

For loop version

Design a rule to get the output!



Use function in digital sum of given number N

Input: `std::cin >> N`

Output: The digital sum of N

ex: N = 1234, output: 10 (1+2+3+4)

```
1 #include <iostream>
2
3 int main() {
4     int N;
5     std::cin >> N;
6     int sum = 0;
7     while(N > 0) {
8         sum += N % 10;
9         N /= 10;
10    }
11    std::cout << sum << "\n";
12 }
13
```

Use function in summation of 1, 2, ..., N

Input: `std::cin >> N`

Output: Summation of 1, 2, ..., N

ex: N = 10, output: 55 (1+2+3+...+10)

```
1 #include <iostream>
2
3 int main() {
4     int N;
5     std::cin >> N;
6     int sum = 0;
7     for(int i = 1; i <= N; ++i) {
8         sum += i;
9     }
10
11     std::cout << sum << "\n";
12 }
```