UVa Online Judge

10696 f91

McCarthy is a famous theorician of computer science. In his work, he defined a recursive function, called $f91$, that takes as input a positive integer N and returns a positive integer defined as follows:

- If $N \leq 100$, then $f91(N) = f91(f91(N + 11))$;
- If $N \geq 101$, then $f91(N) = N - 10$.

Write a program, that computes McCarthy's $f91$.

Input

The input tests will consist of a series of positive integers, each integer is at most 1,000,000. There will be at most 250,000 test cases. Each number is on a line on its own. The end of the input is reached when the number '0' is met. The number '0' shall not be considered as part of the test set.

Output

The program shall output each result on a line by its own, following the format given in the sample output.

Sample Input

```
500
91
0
```

Sample Output

```
f91(500) = 490
f91(91) = 91
```