Problem 10

IPO

Input:

Number

Process:

While (Number > 0)

Number mod 10 and store in digit.

Number divide 10 and store in Number

If Digit == 0 And Number mod 10 == 9 Than

Number divide 10 and store in Number

Store 9 in digit

End If

Declare Result and M

Store Result := 0 and M := 1

Multiple digit with M and then add with Result and store in Result

Multiple 10 with M and store in M

End while

Print "Result"

Output:

Result

Pseudocode

```
Start
Input "Number"
 Result := 0
 M := 1
 Digit := 0
While (Number > 0)
 Digit := Number % 10
 Number := Number/10

 If
    Digit == 9 And Number/10 == 9
       Number := Number /10
       Digit := 9

 End If
    Result := Result + Digit * M
    M := M * 10

End while
 Print "Result"
```

```
                    ( Start )
                        |
                        v
              +------------------+
              |   N , R := 0     |
              |   M := 1 , d     |
              +------------------+
                        |
                        v
                   / N /
                        |
                        v
         No        / N > 0 \
       <-----------\       /
       |            \     /
       v              | yes
   / R /              v
       |       +-------------+
       v       | d := N % 10 |
   ( End )     +-------------+
                        |
                        v
               +-------------+
               | N := N / 10 |
               +-------------+
                        |
                        v
              / d == 9    \        No
             /  And        \ -------->
             \  N % 10 == 9 /
              \            /
                   | yes
                   v
            +-------------+
            | N := N / 10 |
            +-------------+
                   |
                   v
            +-------------+
            |   d := 9    |
            +-------------+
                   |
                   v
         +------------------+
         |  R := R + d * M  |
         +------------------+
                   |
                   v
           +--------------+
           |  M := M * 10 |
           +--------------+
```