Problem 8 : Digit Sum

Understood : Take a number and add all its individual digits to output a sum.

Solution : Use mod 10 on number to get last digit and divisor 10 to get the first two digits.

Pseudocode :

```
START
        OUTPUT " Enter a number "
        INPUT NUM          SUM = 0
        WHILE NUM > 0 :
          Last-digit = NUM MOD 10
          SUM = SUM + Last-digit
          NUM = NUM / 10
        ENDWHILE
          OUTPUT " Sum of digits is " SUM
END
```

IPO chart :

Input	Process	Output
- Enter a Number of integer	- If Number > 0 then last digit would be Number MOD 10. Add - Add this digit to sum - Update Number to Number / 10.	- " Sum of digits of Number entered is " sum

Flowchart :

START

NUM

is NUM > 0

"The sum is", sum — NO

YES

last-digit = Num % 10
Sum = sum + last-digit
Num = Num / 10

END