“section number”:

if input < 9 then “section” = 1
if input < 9 + 90*2 then “section” = 2
if input < 9 + 90*2 + 900*3 then section = 3
…

“section number” tells count digit of the “number” we are looking. For example if “section number” = 2 then the “number” must be between 10 and 99 which are the numbers that have 2 digit.

“section number” is obtained by compare the input by sum of count of the number that have n digit and previous value of n (until n = 1)

“accumulate value” is sum of count of the numbers that have “(section - 1)”-digit and previous value of “(section - 1)” (until the value = 1). For example if “section” = 3 then “accumulate value” is 9 + 189, 9 for count of the numbers that have 1-digit, and 189 for count of the numbers that have 2-digit

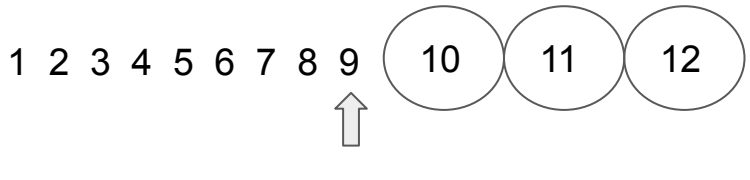
Input, Section, Accumulate → Get the “Number”

the “Number” is the actual number that build the sequence, For Example:
….1213141516…
the sub sequence is built by value of “12”, “13”, … , which every value of it is the “number”.

the “number” can be obtained by this formula:
“lower-value” = 10^(section - 1) - 1
“number” = “lower-value” + ((input - accumulate) div section)

For example: Input = 15, then section=2, accumulate = 9
“lower-value” = 10^(2 - 1) - 1 = 9
“number” = 9 + ((15 - 9) div 2) = 9 + 3 = 12

So, the actual number we are looking is “12”. Manually, we can try to find it, so we can better understand the value of the variables.



3 number after “lower value” is obtained by ((input - accumulate) div section)

Input, Section, Accumulate, The-Number → Get the “Digit”

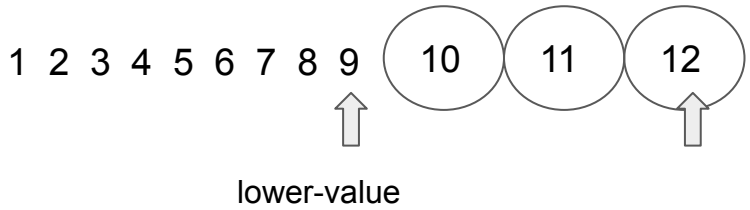
Since we have the-number, all we have to do is choose the digit.
The index of the digit in the-number can be obtained by : ((input - accumulate) mod section)

The possibility values of the output are 0,1,2, … (section -1)

If the output is equals to 0 then value of index is the section or else the index is the output.
For example, Input = 15, then section=2, accumulate = 9, The-Number = 12,

Output = ((15 - 9) mod 2) = 0
Index = section
= 2

The index-2 value in “12” is 2. So the digit is “2”



3 number after “lower value” is obtained by ((input - accumulate) div section)