# **American Computer Science League**

#### 5. Look and Say

**PROBLEM:** From Wikipedia: In mathematics, the **look-and-say sequence** is the sequence of integers beginning as follows:

1, 11, 21, 1211, 111221, 312211, 13112221, 1113213211, ...

To generate a member of the sequence from the previous member, read off the digits of the previous member, counting the number of digits in groups of the same digit. For example:

- 1 is read off as "one 1" or 11.
- 11 is read off as "two 1s" or 21.
- 21 is read off as "one 2, then one 1" or 1211.
- 1211 is read off as "one 1, one 2, then two 1s" or 111221.
- 111221 is read off as "three 1s, two 2s, then one 1" or 312211.

**INPUT:** There will be 10 lines of input. Each line will contain 3 integers: *m*, *n*, and *p*.

**OUTPUT:** For each line of input, find the  $m^{th}$  term and print the string of digits starting with the  $n^{th}$  digit and continuing through the  $(n + p)^{th}$  digit.

### SAMPLE INPUT

### SAMPLE OUTPUT

220	1.1
311	2.21
422	3. 211
542	4. 221
612	5.312
724	6. 31122
844	7. 32132
973	8. 1113
10 10 5	9. 231131
11 15 6	10. 1321132

American Computer Science League

All-Star Contest

5. Look and Say

## TEST DATA

TEST INPUT	TEST OUTPUT
12 10 2	1. 123
13 15 4	2. 13122
14 20 5	3. 112111
16 25 6	4. 3112111
18 40 7	5. 12211121
20 100 10	6. 12221131112
21 200 5	7. 321133
22 300 8	8. 112311332
23 400 10	9. 21321231231
24 500 10	10. 21113122113

2017-2018