Diana is going to write a list of all positive integers between A and B, inclusive, in base 10 and without any leading zeros. She wants to know how many times each digit is going to be used.

Input

Each test case is given in a single line that contains two integers A and B ($1 \leq A \leq B \leq 10^8$). The last test case is followed by a line containing two zeros.

Output

For each test case output a single line with 10 integers representing the number of times each digit is used when writing all integers between A and B, inclusive, in base 10 and without leading zeros. Write the counter for each digit in increasing order from 0 to 9.

Sample Input

```
1 9
12 321
5987 6123
12345678 12345679
0 0
```

Sample Output

```
0 1 1 1 1 1 1 1 1 1
61 169 163 83 61 61 61 61 61 61
134 58 28 24 23 36 147 24 27 47
0 2 2 2 2 2 2 2 1 1
```