

A friend of yours has just bought a new computer. Before this, the most powerful machine he ever used was a pocket calculator. He is a little disappointed because he liked the LCD display of his calculator more than the screen on his new computer! To make him happy, write a program that prints numbers in LCD display style.

Input

The input file contains several lines, one for each number to be displayed. Each line contains integers s and n , where n is the number to be displayed ($0 \leq n < 999,999$) and s is the size in which it shall be displayed ($1 \leq s \leq 10$). The input will be terminated by a line containing two zeros, which should not be processed.

Output

Print the numbers specified in the input file in an LCD display-style using `-` signs for the horizontal segments and `|` signs for the vertical ones. Each digit occupies exactly $s + 2$ columns and $2s + 3$ rows. Be sure to fill all the white space occupied by the digits with blanks, including the last digit. There must be exactly one column of blanks between two digits.

Output a blank line after each number. You will find an example of each digit in the sample output below.

Sample Input

```
2 12345
```

```
0 0
```

Sample Output

```

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|  |  |  |  |
|  |  |  |  |
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|  |  |  |  |
|  |  |  |  |
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```