LCD

A friend of yours has just bought a new computer. Until now, the most powerful computer he ever used has been a pocket calculator. Now, looking at his new computer, he is a bit disappointed, because he liked the LCD-display of his calculator so much. So you decide to write a program that displays numbers in an LCD-display-like style on his computer.

Input

The input contains several lines, one for each number to be displayed. Each line contains two integers s, n

$$1 \le \mathbf{s} \le 10,$$

 $0 < \mathbf{n} < 99999$

, where n is the number to be displayed and s is the size in which it shall be displayed. The input should be terminated by a line containing two zeros.

Output

Output the numbers given in the input file in an LCD-display-style using s "-" signs for the horizontal segments and s "|" signs for the vertical ones. Each digit occupies exactly s+2 columns and 2s+3 rows. (Be sure to leave a space between the output digits.) There has to be exactly one column of blanks between two digits.

Output a blank line after each number. (You will find a sample of each digit in the sample output.)

Sample Input

2 12345 3 67890 0 0

Sample Output

