

A	<h2 style="margin: 0;">Ridiculous Game</h2>				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;">Time Limit</td><td style="padding: 5px;">1 second</td></tr> <tr> <td style="padding: 5px;">Memory Limit</td><td style="padding: 5px;">256 MB</td></tr> </table>	Time Limit	1 second	Memory Limit	256 MB
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Peter is playing a game with Diana. It's a pretty straightforward game. Diana will give Peter a word. After that, Peter must "*rotate*" the word as much as Diana wants him to. Then Peter will say the final word to Diana after all rotations are complete.

To "*rotate*" a word, Peter must take the rightmost character of the word and put it at the front of the word. This will complete one "*rotate*" operation.

But Diana is extreme with her game. The number of times Diana wants Peter to "*rotate*" is so huge to the point that Peter may have a mental breakdown after this game. So, whenever Diana looks away, he'll text you the words and the numbers of times Diana wants Peter to "*rotate*" the word. You must print out the final word to Peter so that Peter can answer Diana.

INPUT

The first line of the input contains one integer T ($1 \leq T \leq 10$) which denotes the number of testcases in the input file. Then T testcases follow on separate lines.

In each line contains a string of length lower than 1,000 followed by a single positive integer k , denoting the number of times the word must be *rotated*. The integer k will not exceed the length of the string.

OUTPUT

The output contains T sets, each containing a single string – the final word after all rotations.

The output for each test should be put on separate lines but without an empty line between tests.



EXAMPLE

Sample Input	Sample Output
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