Q6: SHOOT THAT TARGET

A sharpshooter has created a game to increase her shooting skills. She sets up N wooden targets in a straight line as shown below, each labeled with a letter. Then she chooses a number 1 ≤ k ≤ N and tries to shoot down every k-th target left standing as she sweeps back and forth – starting left-to-right – counting off targets and reversing direction to right-to-left when there are no more standing targets to the right of where she is aiming. As she counts targets from right-to-left, she reverses direction to left-to-right when there are no more standing targets to the left of where she is aiming.

She repeats this process until one target is left, and then she shoots that last target. Here is an example with N=5 and k = 3. The targets are labeled “A B C D E” and she starts counting left-to-right from A.

<table>
<thead>
<tr>
<th>Sweep Direction</th>
<th>Actions</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setup</td>
<td>A B C D E</td>
<td></td>
</tr>
<tr>
<td>left-to-right</td>
<td>Counts 1 (A), 2 (B), 3 (C) and shoots down C</td>
<td>A B _ D E</td>
</tr>
<tr>
<td></td>
<td>Counts 1 (D), 2 (E) but has run out of targets so she reverses direction (don’t double count E!)</td>
<td>A _ _ D E</td>
</tr>
<tr>
<td>right-to-left</td>
<td>Counts 3 (D) and shoots down D</td>
<td>A B _ E</td>
</tr>
<tr>
<td></td>
<td>Counts 1 (B), 2 (A) but has run out of targets so she reverses direction (don’t double count A!)</td>
<td>A _ _ E</td>
</tr>
<tr>
<td>left-to-right</td>
<td>Counts 3 (B) and shoots down B</td>
<td>_ _ _ E</td>
</tr>
<tr>
<td></td>
<td>Counts 1 (E) but has run out of targets so she reverses direction (don’t double count E!)</td>
<td>_ _ _ E</td>
</tr>
<tr>
<td>right-to-left</td>
<td>Counts 2 (A) but has run out of targets so she reverses direction (don’t double count A!)</td>
<td>_ _ _ E</td>
</tr>
<tr>
<td>left-to-right</td>
<td>Counts 3 (E) and shoots down E</td>
<td>_ _ _ _</td>
</tr>
<tr>
<td></td>
<td>Only one target left. She shoots down A</td>
<td>_ _ _ _</td>
</tr>
</tbody>
</table>

In this example, the order in which she shoots down the targets is CDBEA

**Input**

The input consists of a single line containing two integers "N k" separated by a single space. You can assume that 1 ≤ N ≤ 26 and 1 ≤ k ≤ N.

**Output**

The output consists of a single line containing N capital letters representing the order in which the targets are shot. The targets are labeled using capital letters from “A” to “Z” based on the number N.

**Sample Input and Output**

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 3</td>
<td>CDBEA</td>
</tr>
<tr>
<td>6 1</td>
<td>ABCDEF</td>
</tr>
<tr>
<td>5 5</td>
<td>EBCDA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 4</td>
<td>DPAGCBE</td>
</tr>
<tr>
<td>13 5</td>
<td>EJKDCLFHBIGAM</td>
</tr>
<tr>
<td>6 2</td>
<td>BDFCEA</td>
</tr>
</tbody>
</table>