5A: Test Cases

Problem Statement: The Kakuro Game looks like a crossword puzzle except the clues are sums and the entries in the squares are integers. Part of finding a solution involves finding a set of a given number of positive integers that sum to a given value.

You task is given a length N and a sum S, find a set of N integers between 1 and 9 (inclusive) that could add up to the sum S without any duplicates in the set.

Test cases for first attempt:

<table>
<thead>
<tr>
<th>Test case 1</th>
<th>Test Case 2</th>
<th>Test Case 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>length: 9</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>sum: 45</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>set: {1,2,3,4,5,6,7,8,9}</td>
<td>{6,8,9}</td>
<td>{1,2,3,4,7,9}</td>
</tr>
</tbody>
</table>

For second attempt, retest above tests and the ones below:

<table>
<thead>
<tr>
<th>Test case 4</th>
<th>Test Case 5</th>
<th>Test Case 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>length: 9</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>sum: 55</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>set: too big</td>
<td>{6,7,9}</td>
<td>{2,3,4,5,6,7,8,9}</td>
</tr>
</tbody>
</table>