5A: Kakuro Game

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.

Example:

Enter length: 9  Enter sum: 45  Possible set: {1,2,3,4,5,6,7,8,9}
Enter length: 9  Enter sum: 55  Possible triple: error – sum too large
Enter length: 3  Enter sum: 24  Possible set:  7,8,9