

Partitions

ZPRAC-16-17-Lab12

PARTITIONS [40 Points]

ANNOUNCEMENT:

Up to 20% marks will be allotted for good programming practice. These include

- Comments for non trivial code
 - Indentation: align your code properly
 - Use dynamic memory allocation whenever memory is needed
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Given a natural number x , print all the sequences of natural numbers whose sum is equal to x . Also, only those sequences should be printed which are non-increasing. You need to use recursion for the same.

Note: All the non-increasing sequences starting with 1 should be printed before the ones starting with 2 and so on.

Input: One line containing the number n

Output: All the non-increasing sequences printed in the desired order.

Example: Input : 4 Output: 1 1 1 1 2 1 1 2 2 3 1 4

Constrains: $1 \leq n \leq 15$

