

CUBO

Description

You are given a cube **CUBO** of size **50x50x50** units. (Looks familiar? It is related to *carreau*! No figure will be provided this time.) You are required to place cubes of sizes equal to or smaller than **50x50x50** units parallel and within the **CUBO**. At most one cube of each size is allowed and cubes may not overlap with each other. Cube dimensions must be integer.

Question

What is the maximum number of cubes with the maximum volume coverage you can place in the **CUBO**? Again, You will be evaluated on the number of cubes you can place within the **CUBO**, then by the total volume that is covered by cubes.

Sample Solution (for a 5x5x5 **CUBO**, 3 cubes packed with a volume coverage of 36)

	1st Layer					2nd Layer					3rd Layer					4th Layer					5th Layer				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	3	3	3	2	2	3	3	3	2	2	3	3	3												
2	3	3	3	2	2	3	3	3	2	2	3	3	3												
3	3	3	3	1		3	3	3			3	3	3												
4																									
5																									

Solution Format

50 matrices slices of size **50x50** that each represent a layer (top to bottom) of **CUBO** spots starting with the front most layer: **0** indicating no cube is placed in that spot and **n** in the set {1, 2, ..., 50} representing the size of the cube placed in that spot in a space separated **.data** or **.txt** or **.csv** file.