
Algorithm 1 'In-fitter' Algorithm

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1: procedure INFITTER( $box_1, box_2$ )
2:   ParameterOne:  $box_1$  Dimensions of the bigger box (Array)  $[L, W, H]$ 
3:   ParameterTwo:  $box_2$  Dimensions of the smaller box (Array)  $[L, W, H]$ 
4:   Output: The most amount of  $box_2$ 's that will fit into  $box_1$ 
5:
6:    $perms \leftarrow [1, 2, 3; 1, 3, 2; 2, 1, 3; 2, 3, 1; 3, 1, 2; 3, 2, 1]$   $\triangleright$  permutations of box orientation
7:    $amountFit \leftarrow [6]$ 
8:   for  $i = 1$  to 6 do
9:      $boxL \leftarrow box_2[perms[i][1]]$   $\triangleright$  get current permutation configuration
10:     $boxW \leftarrow box_2[perms[i][2]]$ 
11:     $boxH \leftarrow box_2[perms[i][3]]$ 
12:
13:     $amountL \leftarrow floor(box_1[1]/boxL)$ 
14:     $amountW \leftarrow floor(box_1[2]/boxW)$ 
15:     $amountH \leftarrow floor(box_1[3]/boxH)$ 
16:     $amountFit[i] \leftarrow (amountL * amountW * amountH)$ 
17:   end for
18:   Return  $findLargest(amountFit)$ 
19: end procedure
```
