

Algorithm 1 Generation of a new random solution.

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1: procedure NEW RANDOM SOLUTION
2:    $v \leftarrow \text{shuffle}(1, 2, \dots, n)$ 
3:    $s \leftarrow \emptyset$  ▷ empty solution
4:   for  $i \leftarrow 1 : n$  do
5:      $s \leftarrow s \cup \{v_i\}$  ▷ adding item
6:     if  $s$  is not feasible then ▷ checking feasibility
7:        $s \leftarrow s - \{v_i\}$ 
8:     end if
9:   end for
10:  return  $s$ 
11: end procedure
```
