

[Explore](#)[Problems](#)[Interview](#)

New

[Contest](#)[Discuss](#)[Store](#)[☆ Premium](#)[Description](#)[Solution](#)[Discuss \(999+\)](#)[Submissions](#)

1710. Maximum Units on a Truck

Easy

[2260](#)[136](#)[Add to List](#)[Share](#)

You are assigned to put some amount of boxes onto **one truck**. You are given a 2D array `boxTypes`, where `boxTypes[i] = [numberOfBoxesi, numberOfUnitsPerBoxi]`:

- `numberOfBoxesi` is the number of boxes of type `i`.
- `numberOfUnitsPerBoxi` is the number of units in each box of the type `i`.

You are also given an integer `truckSize`, which is the **maximum** number of **boxes** that can be put on the truck. You can choose any boxes to put on the truck as long as the number of boxes does not exceed `truckSize`.

Return the **maximum** total number of **units** that can be put on the truck.

Example 1:

Input: `boxTypes = [[1,3],[2,2],[3,1]]`, `truckSize = 4`

Output: 8

Explanation: There are:

- 1 box of the first type that contains 3 units.
- 2 boxes of the second type that contain 2 units each.
- 3 boxes of the third type that contain 1 unit each.

You can take all the boxes of the first and second types, and one box of the third type.

The total number of units will be = $(1 * 3) + (2 * 2) + (1 * 1) = 8$.

Example 2:

Input: `boxTypes = [[5,10],[2,5],[4,7],[3,9]]`, `truckSize = 10`

Output: 91

Constraints:

- $1 \leq \text{boxTypes.length} \leq 1000$
- $1 \leq \text{numberOfBoxes}_i, \text{numberOfUnitsPerBox}_i \leq 1000$
- $1 \leq \text{truckSize} \leq 10^6$

Accepted 178,845

Submissions 243,061

Seen this question in a real interview before?

☐ Yes☐ No[⌵ Problems](#)[✂ Pick One](#)[◀ Prev](#)

1710/232