You are given a **0-indexed** 2D integer array brackets where brackets[i] = [upperi, percenti] means that the ith tax bracket has an upper bound of upperi and is taxed at a rate of percenti. The brackets are **sorted** by upper bound (i.e. upperi-1 < upperi for 0 < i < brackets.length).

Tax is calculated as follows:

* The first upper0 dollars earned are taxed at a rate of percent0.
* The next upper1 - upper0 dollars earned are taxed at a rate of percent1.
* The next upper2 - upper1 dollars earned are taxed at a rate of percent2.
* And so on.

You are given an integer income representing the amount of money you earned. Return *the amount of money that you have to pay in taxes.* Answers within 10-5 of the actual answer will be accepted.

**Example 1:**

**Input:** brackets = [[3,50],[7,10],[12,25]], income = 10

**Output:** 2.65000

**Explanation:**

The first 3 dollars you earn are taxed at 50%. You have to pay $3 \* 50% = $1.50 dollars in taxes.

The next 7 - 3 = 4 dollars you earn are taxed at 10%. You have to pay $4 \* 10% = $0.40 dollars in taxes.

The final 10 - 7 = 3 dollars you earn are taxed at 25%. You have to pay $3 \* 25% = $0.75 dollars in taxes.

You have to pay a total of $1.50 + $0.40 + $0.75 = $2.65 dollars in taxes.

**Example 2:**

**Input:** brackets = [[1,0],[4,25],[5,50]], income = 2

**Output:** 0.25000

**Explanation:**

The first dollar you earn is taxed at 0%. You have to pay $1 \* 0% = $0 dollars in taxes.

The second dollar you earn is taxed at 25%. You have to pay $1 \* 25% = $0.25 dollars in taxes.

You have to pay a total of $0 + $0.25 = $0.25 dollars in taxes.

**Example 3:**

**Input:** brackets = [[2,50]], income = 0

**Output:** 0.00000

**Explanation:**

You have no income to tax, so you have to pay a total of $0 dollars in taxes.

**Constraints:**

* 1 <= brackets.length <= 100
* 1 <= upperi <= 1000
* 0 <= percenti <= 100
* 0 <= income <= 1000
* upperi is sorted in ascending order.
* All the values of upperi are **unique**.
* The upper bound of the last tax bracket is greater than or equal to income.