5259. Calculate Amount Paid in Taxes

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User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Easy

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

Tax is calculated as follows:

- The first `upper_0` dollars earned are taxed at a rate of `percent_0`.
- The next `upper_1 - upper_0` dollars earned are taxed at a rate of `percent_1`.
- The next `upper_2 - upper_1` dollars earned are taxed at a rate of `percent_2`.
- 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 <= upper_i <= 1000`
- `0 <= percent_i <= 100`
- `0 <= income <= 1000`
- `upper_i` is sorted in ascending order.
- All the values of `upper_i` are **unique**.
- The upper bound of the last tax bracket is greater than or equal to `income`.

JavaScript

```
const calculateTax = (brackets, income) => {
    let n = brackets.length, pre, res = 0, sum = 0;
    for (const [upper, percent] of brackets) {
        let x;
        if (pre == undefined) {
            x = Math.min(upper, income);
        } else {
            x = Math.min(upper - pre, income - pre);
        }
```

```
        res += Math.max(0, x * percent / 100);
        pre = upper;
        sum += upper;
    }
    return res;
};
```

Custom Testcase | Use Example Testcases

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