Problem 2288: Apply Discount to Prices

Problem Information

Difficulty: Medium
Acceptance Rate: 33.50%
Paid Only: No
Tags: String

Problem Description

A **sentence** is a string of single-space separated words where each word can contain digits, lowercase letters, and the dollar sign `'$'`. A word represents a **price** if it is a sequence of digits preceded by a dollar sign.

* For example, `"$100"`, `"$23"`, and `"$6"` represent prices while `"100"`, `"$"`, and `"$1e5"` do not.

You are given a string `sentence` representing a sentence and an integer `discount`. For each word representing a price, apply a discount of `discount%` on the price and **update** the word in the sentence. All updated prices should be represented with **exactly two** decimal places.

Return _a string representing the modified sentence_.

Note that all prices will contain **at most** `10` digits.

Example 1:

Input: sentence = "there are $1 $2 and 5$ candies in the shop", discount = 50 **Output:** "there are $0.50 $1.00 and 5$ candies in the shop" **Explanation:** The words which represent prices are "$1" and "$2". - A 50% discount on "$1" yields "$0.50", so "$1" is replaced by "$0.50". - A 50% discount on "$2" yields "$1". Since we need to have exactly 2 decimal places after a price, we replace "$2" with "$1.00".

Example 2:

Input: sentence = "1 2 $3 4 $5 $6 7 8$ $9 10", discount = 100 **Output:** "1 2 $0.00 4 $0.00 $0.00 7 8$ $0.00 10" **Explanation:** Applying a 100% discount on any price will result in 0. The words representing prices are "$3", "$5", "$6", and "$9". Each of them is replaced by "$0.00".

Constraints:

* `1 <= sentence.length <= 105` * `sentence` consists of lowercase English letters, digits, `' '`, and `'$'`. * `sentence` does not have leading or trailing spaces. * All words in `sentence` are separated by a single space. * All prices will be **positive** numbers without leading zeros. * All prices will have **at most** `10` digits. * `0 <= discount <= 100`

Code Snippets

C++:

```
class Solution {
public:
string discountPrices(string sentence, int discount) {

}
};
```

Java:

```
class Solution {
public String discountPrices(String sentence, int discount) {

}
}
```

Python3:

```
class Solution:
def discountPrices(self, sentence: str, discount: int) -> str:
```