Table: Prices

+---------------+---------+  
| Column Name | Type |  
+---------------+---------+  
| product\_id | int |  
| start\_date | date |  
| end\_date | date |  
| price | int |  
+---------------+---------+  
(product\_id, start\_date, end\_date) is the primary key (combination of columns with unique values) for this table.  
Each row of this table indicates the price of the product\_id in the period from start\_date to end\_date.  
For each product\_id there will be no two overlapping periods. That means there will be no two intersecting periods for the same product\_id.

Table: UnitsSold

+---------------+---------+  
| Column Name | Type |  
+---------------+---------+  
| product\_id | int |  
| purchase\_date | date |  
| units | int |  
+---------------+---------+  
This table may contain duplicate rows.  
Each row of this table indicates the date, units, and product\_id of each product sold.

Write a solution to find the average selling price for each product. average\_price should be **rounded to 2 decimal places**.

Return the result table in **any order**.

The result format is in the following example.

**Example 1:**

Input:   
Prices table:  
+------------+------------+------------+--------+  
| product\_id | start\_date | end\_date | price |  
+------------+------------+------------+--------+  
| 1 | 2019-02-17 | 2019-02-28 | 5 |  
| 1 | 2019-03-01 | 2019-03-22 | 20 |  
| 2 | 2019-02-01 | 2019-02-20 | 15 |  
| 2 | 2019-02-21 | 2019-03-31 | 30 |  
+------------+------------+------------+--------+  
UnitsSold table:  
+------------+---------------+-------+  
| product\_id | purchase\_date | units |  
+------------+---------------+-------+  
| 1 | 2019-02-25 | 100 |  
| 1 | 2019-03-01 | 15 |  
| 2 | 2019-02-10 | 200 |  
| 2 | 2019-03-22 | 30 |  
+------------+---------------+-------+  
Output:   
+------------+---------------+  
| product\_id | average\_price |  
+------------+---------------+  
| 1 | 6.96 |  
| 2 | 16.96 |  
+------------+---------------+  
Explanation:   
Average selling price = Total Price of Product / Number of products sold.  
Average selling price for product 1 = ((100 \* 5) + (15 \* 20)) / 115 = 6.96  
Average selling price for product 2 = ((200 \* 15) + (30 \* 30)) / 230 = 16.96