Table: Queries

+-------------+---------+  
| Column Name | Type |  
+-------------+---------+  
| query\_name | varchar |  
| result | varchar |  
| position | int |  
| rating | int |  
+-------------+---------+  
This table may have duplicate rows.  
This table contains information collected from some queries on a database.  
The position column has a value from 1 to 500.  
The rating column has a value from 1 to 5. Query with rating less than 3 is a poor query.

We define query quality as:

The average of the ratio between query rating and its position.

We also define poor query percentage as:

The percentage of all queries with rating less than 3.

Write a solution to find each query\_name, the quality and poor\_query\_percentage.

Both quality and poor\_query\_percentage 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:   
Queries table:  
+------------+-------------------+----------+--------+  
| query\_name | result | position | rating |  
+------------+-------------------+----------+--------+  
| Dog | Golden Retriever | 1 | 5 |  
| Dog | German Shepherd | 2 | 5 |  
| Dog | Mule | 200 | 1 |  
| Cat | Shirazi | 5 | 2 |  
| Cat | Siamese | 3 | 3 |  
| Cat | Sphynx | 7 | 4 |  
+------------+-------------------+----------+--------+  
Output:   
+------------+---------+-----------------------+  
| query\_name | quality | poor\_query\_percentage |  
+------------+---------+-----------------------+  
| Dog | 2.50 | 33.33 |  
| Cat | 0.66 | 33.33 |  
+------------+---------+-----------------------+  
Explanation:   
Dog queries quality is ((5 / 1) + (5 / 2) + (1 / 200)) / 3 = 2.50  
Dog queries poor\_ query\_percentage is (1 / 3) \* 100 = 33.33  
  
Cat queries quality equals ((2 / 5) + (3 / 3) + (4 / 7)) / 3 = 0.66  
Cat queries poor\_ query\_percentage is (1 / 3) \* 100 = 33.33