1211. Queries Quality and Percentage

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.
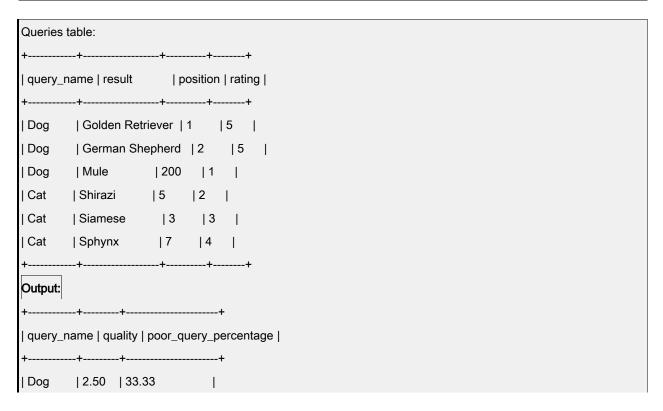
We define query quality as: The average of the ratio between query rating and its position.

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**.

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 $(1 / 3) * 100 = 33.33$

```sql
# Write your MySQL query statement below
select query_name,
    round(avg(rating/position),2) as quality,
    round((sum(case when rating < 3 then 1 else 0 end)*100)/count(*),2) as poor_query_percentage
from Queries
group by query_name
```