Assignment - SQL

1. Write a query to figure out which of your products were above the average price per vendor on each market date?

```
select *
from
(select vendor_id,market_date,product_id,original_price,
avg(original_price) over (partition by vendor_id order by market_date) as average_price
from `farmers_market.vendor_inventory`) as average
where average.original_price > average.average_price ;
```

2. Write a query to count how many different products each customer brought on each date.

```
select *,
count(product_id) over (partition by customer_id,market_date ) as count_products
from `farmers_market.customer_purchases` ;
```

3. Write a query to count the avg of quantities bought by customers on each date.

```
select market_date,customer_id,quantity,
avg(quantity) over (partition by market_date,customer_id order by customer_id ) as avg_qty
from `farmers_market.customer_purchases` ;
```

4. Write a query to calculate the 5 days running sum for each customers (Unbounded preceding and current row with average function)

```
select customer_id,market_date,quantity*cost_to_customer_per_qty as sales,
avg(quantity*cost_to_customer_per_qty) over (partition by customer_id order by customer_id
rows between 5 preceding and current row) as avg
from `farmers_market.customer_purchases` ;
```

5. Write a query to calculate how many days the total sales was higher than the previous day.

```
select count(*) as sales_higher_than_prev_days
from
(select market_date,quantity*cost_to_customer_per_qty as total_sale,
lag(quantity*cost_to_customer_per_qty) over (order by market_date) as previous_day_sale
from `farmers_market.customer_purchases`
order by market_date) as t1
where t1.total_sale > t1.previous_day_sale
```