Suppose you're an analyst for an e-commerce store. You're trying to identify the top selling products in Q4 2017 by region, and you have 2 tables that you can query:

Table: all_products

Column Name	Data Type	Description
product_id	integer	id of the product
product_name	string	name of the product
sku	integer	universal stock keeping unit number
distributor_id	integer	id for distributor

Table: orders

Column Name	Data Type	Description
date	string	format is "YYYY-MM-DD"
user_id	integer	id of purchaser
order_id	integer	id of order number
product_id	integer	id of product

no_units	integer	number of units sold in the order
price	integer	price per item
shipping_id	integer	id of shipment
region	string	region being shipped to

Using the tables above, write a SQL query to find the **top 5 selling products (in terms of total units sold) by region in Q4 of 2017**. Include both the distributor id as well as the name of the product in your results.

My Answer:

```
SELECT
   b.region,
    a.distributor_id,
   a.product_name,
   b.num_units_sold

   FROM


      (SELECT
      distributor_id,
      product_id,
      product_name
      FROM all_products) a

JOIN

      (
      SELECT
      Region,
      Product_id,
      Num_units_sold,
      RANK() OVER (ORDER BY num_units_sold)as ranking
      FROM
            (
            SELECT
            region,
            product_id,
            sum(no_units) as num_units_sold
            FROM orders
            WHERE date>= "2017-10-01" and <"2018-01-01"
            GROUP BY region, product_id)
      ) b

ON (a.product_id=b.product_id)
Where a.ranking<=5
```