SQL Pre-Screening Technical Questions

Using the three tables below (Employees, Orders, Inventory), create a SQL Statement based on the following questions:

Employees

EmployeeID	FirstName	LastName	Office	HireDate
1	Bob	Andrews	NY	03/10/2015
2	Katie	Martin	CA	06/30/2020
3	Ryan	Phillips	NY	07/15/2017
4	Lauren	Paulson	PA	08/13/2010
5	Kevin	Roberts	PA	02/24/2019
6	Samantha	Cruz	CA	05/19/2013
7	Phil	Williams	CA	11/05/2016
8	Stephanie	Anderson	PA	01/19/2012
9	Sean	Becker	NY	03/20/2018
10	William	Smith	CA	06/17/2021

Orders

OrderNumber	Employee	ItemNumber	Quantity	SaleDate
1001	1	99456	20	01/20/2022
1002	7	45677	17	12/31/2021
1003	8	99456	40	01/10/2022
1004	6	46598	25	12/28/2021
1005	4	66598	13	01/13/2022
1006	1	45672	10	01/19/2022
1007	3	51369	5	12/27/2021
1008	9	46598	15	01/17/2022
1009	4	66598	19	01/16/2022
1010	10	54683	7	12/29/2021

Inventory

ItemNumber	Description	Price	Supplier
20156	Whiteboard Markers	10.99	Staples Co.
46598	Pencils	5.99	Staples Co.
32659	Paper (legal)	47.50	Dunder Mifflin
45677	Office Chair	96.30	Office Max
99456	Paper (white)	35.00	Dunder Mifflin
54683	Desk Calendar	14.99	Office Max
51369	Phone Headset	29.99	Office Max
45672	Printer Toner	85.45	Dunder Mifflin
66598	Tablet	72.50	Staples Co.

1. Write a SQL Statement that generates the following results for items supplied by **Staples Co.**:

OrderNumber	SaleDate	Supplier
1004	12/28/2021	Staples Co.
1005	01/13/2022	Staples Co.
1008	01/17/2022	Staples Co.
1009	01/16/2022	Staples Co.

Need ordernumber, saledate from Orders, and supplier from inventory. Need to right join on inventory since it has supplier column.

```
SELECT OrderNumber, SaleDate, Supplier FROM

Orders RIGHT JOIN Inventory

ON Orders.ItemNumber = Inventory.ItemNumber

WHERE Supplier = 'Staples Co.';
```

2. Write a SQL Statement that generates the following results, calculating the field **TotalValue** from Quantity and Price:

OrderNumber	SaleDate	ItemNumber	Quantity	Price	TotalValue
1001	01/20/2022	99456	20	35	700
1002	12/31/2021	45677	17	96.3	1637.1
1003	01/10/2022	99456	40	35	1400
1004	12/28/2021	46598	25	5.99	149.75
1005	01/13/2022	66598	13	72.5	942.5
1006	01/19/2022	45672	10	85.45	854.5
1007	12/27/2021	51369	5	29.99	149.95
1008	01/17/2022	46598	15	5.99	89.85
1009	01/16/2022	66598	19	72.5	1377.5
1010	12/29/2021	54683	7	14.99	104.93

need ordernumber, saledate, itemnumber, quantity, from Orders table and price from inventory table

```
SELECT a.OrderNumber, a.SaleDate, b.ItemNumber, a.Quantity, b.Price,  (a.Quantity * b.Price) AS TotalValue

FROM Orders a LEFT JOIN Inventory b

ON a.ItemNumber = b.ItemNumber;
```

3. Write a SQL Statement that generates the following results for offices located in **PA**, ordering the results from the earliest SaleDate, and creating the field **FullName** using the combination of First Name and Last Name:

OrderNumber	SaleDate	FullName	Office
1003	01/10/2022	Stephanie Anderson	PA
1005	01/13/2022	Lauren Paulson	PA
1009	01/16/2022	Lauren Paulson	PA

need ordernumber, saledate from Orders table, and last name, first name and office from employees table, need to join on employeeid

```
SELECT OrderNumber, SaleDate, CONCAT(FirstName, ' ', LastName) AS FullName, Office

FROM Employees
```

```
LEFT JOIN Orders

ON Employees.EmployeeID = Orders.Employee

WHERE Office = 'PA';
```

4. Write a SQL Statement that generates the following results, calculating the field TotalOrders:

EmployeeID	FullName	TotalOrders
1	Bob Andrews	2
3	Ryan Phillips	1
4	Lauren Paulson	2
6	Samantha Cruz	1
7	Phil Williams	1
8	Stephanie Anderson	1
9	Sean Becker	1
10	William Smith	1

need employeeID, last name, first name from employee table, total orders can be calculated by grouping the employee column in Orders table so in order for employee column to retain rows we need to right join

```
SELECT EmployeeID, CONCAT(FirstName, ' ', LastName) AS FullName, COUNT(Employee) AS TotalOrders

FROM Employees

RIGHT JOIN Orders

ON Employees.EmployeeID = Orders.Employee

GROUP BY Employee;
```