HAVING Clause Practice Problems

1) Find the total sales by territory for all rows in the Sales.SalesOrderHeader table. Return only those territories that have exceeded $10 million in historical sales. Return the total sales and the TerritoryID column.
2) Using the query from the previous question, join to the Sales.SalesTerritory table and replace the TerritoryID column with the territory's name.
3) Using the Production.Product table, find how many products are associated with each color. Ignore all rows where the color has a NULL value. Once grouped, return to the results only those colors that had at least 20 products with that color.
4) Starting with the Sales.SalesOrderHeader table, join to the Sales.SalesOrderDetail table. This table contains the line item details associated with each sale. From Sales.SalesOrderDetail, join to the Production.Product table. Return the Name column from Production.Product and assign it the column alias "Product Name". For each product, find out how many of each product was ordered for all orders that occurred in 2006. Only output those products where at least 200 were ordered.
5) Find the first and last name of each customer who has placed at least 6 orders between July 1, 2005 and December 31, 2006. Order your results by the number of orders placed in descending order. (Hint: You will need to join to three tables – Sales.SalesOrderHeader, Sales.Customer, and Person.Person. You will use every clause to complete this query).

HAVING Clause Practice Problem Solutions

Question 1:

```
SELECT
       TerritoryID,
       SUM(TotalDue) AS TotalSales
FROM Sales.SalesOrderHeader
GROUP BY TerritoryID
HAVING SUM(TotalDue) > 10000000
```

Question 2:

```
SELECT
       ST.Name AS TerritoryName,
       SUM(TotalDue) AS TotalSales
FROM Sales.SalesOrderHeader SOH
LEFT OUTER JOIN Sales.SalesTerritory ST
ON ST.TerritoryID = SOH.TerritoryID
GROUP BY ST.Name
HAVING SUM(TotalDue) > 10000000
```

Question 3:

```
SELECT
       Color,
       COUNT(*) AS ProductCount
FROM Production.Product
WHERE Color IS NOT NULL
GROUP BY Color
HAVING COUNT(*) >= 20
```

Question 4:

```
SELECT
       P.Name AS [Product Name],
       SUM(SOD.OrderQty) AS ProductOrderCount
FROM Sales.SalesOrderHeader SOH
INNER JOIN Sales.SalesOrderDetail SOD
ON SOD.SalesOrderID = SOH.SalesOrderID
INNER JOIN Production.Product P
ON P.ProductID = SOD.ProductID
WHERE SOH.OrderDate BETWEEN '1/1/2006' AND '12/31/2006'
GROUP BY P.Name
HAVING SUM(SOD.OrderQty) >= 200
```

Question 5:

```
SELECT
       P.FirstName,
       P.LastName,
       COUNT(*) AS OrdersPlaced
FROM Sales.SalesOrderHeader SOH
INNER JOIN Sales.Customer C
ON C.CustomerID = SOH.CustomerID
INNER JOIN Person.Person P
ON P.BusinessEntityID = C.PersonID
WHERE OrderDate BETWEEN '7/1/2005' AND '12/31/2006'
GROUP BY P.FirstName, P.LastName
HAVING COUNT(*) >= 6
```

```
ORDER BY OrdersPlaced DESC
```