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Homework #11

1.

```
SELECT parent.AnimalName AS "Mother's Name",  
       COUNT(child.AnimalID) AS "Number of Children"  
FROM Animal AS parent  
     INNER JOIN Animal AS child  
       ON parent.AnimalID = child.MotherAnimalID  
WHERE parent.AnimalID = child.MotherAnimalID  
GROUP BY parent.AnimalName
```
2.
 - a. 3 columns are returned.
 - b. The function used is not an aggregate function, and therefore, does not need a GROUP BY clause.
 - c. It will only include employees, since the table join is based on the predicate that the BusinessEntityID in the Person.Person table is the same as the one in the HumanResources.Employee table.
 - d. It will NOT include all employees, since the WHERE clause filters out those are not current and salaried employees.
 - e. The “Years with Company” column was defined in the SELECT clause, and since the SELECT clause is executed before the ORDER BY clause, the definition remains valid in the ORDER BY clause.
 - f.

```
SELECT Person.Person.FirstName + ' ' + Person.Person.LastName AS "Employee",  
       HumanResources.Employee.JobTitle,  
       YEAR(GETDATE())-YEAR(HireDate) AS "Years with Company"  
FROM Person.Person INNER JOIN HumanResources.Employee  
     ON Person.Person.BusinessEntityID =  
       HumanResources.Employee.BusinessEntityID  
WHERE CurrentFlag = 1 AND SalariedFlag = 1 AND YEAR(GETDATE())-YEAR(HireDate) < 15  
ORDER BY "Years with Company" DESC
```
3.

```
SELECT SUM(SickLeaveHours) AS "Total Sick Leave Hours"  
FROM HumanResources.Employee  
WHERE CurrentFlag = 1
```
4.

```
SELECT Employee.NationalIDNumber AS "National ID",  
       Employee.JobTitle AS "Job Title",  
       Employee.SickLeaveHours AS "Sick Leave Hours"  
FROM HumanResources.Employee  
WHERE CurrentFlag = 1 AND SickLeaveHours > (SELECT AVG(SickLeaveHours) FROM  
       HumanResources.Employee)
```

5.

```
SELECT Person.Person.FirstName + ' ' + Person.Person.LastName AS "Employee",
       Employee.NationalIDNumber AS "National ID",
       Employee.JobTitle AS "Job Title",
       Employee.SickLeaveHours AS "Sick Leave Hours"
FROM HumanResources.Employee
     INNER JOIN Person.Person
     ON Employee.BusinessEntityID = Person.BusinessEntityID
WHERE CurrentFlag = 1 AND SickLeaveHours > (SELECT AVG(SickLeaveHours) FROM
     HumanResources.Employee)
```
6.

```
SELECT Employee.JobTitle AS "Job Title",
       SUM(Employee.SickLeaveHours) AS "Total Sick Leave Hours"
FROM HumanResources.Employee
WHERE CurrentFlag = 1
GROUP BY Employee.JobTitle
```
7.

```
SELECT DISTINCT SalesTerritory.Name AS "Sales Territory"
FROM Sales.SalesTerritory
WHERE NOT EXISTS
      (SELECT DISTINCT SalesPerson.TerritoryID FROM Sales.SalesPerson WHERE
       SalesPerson.TerritoryID = SalesTerritory.TerritoryID)
```