CASE Statements Lab Problems

1) Return the FirstName and LastName column from Person.Person. Return a third column that outputs "Promotion 1" if the EmailPromotion column value is 0, "Promotion 2" if the EmailPromotion value is 1, and "Promotion 3" if the column value is 2.

2) In a CASE statement you define conditional expressions based on column values. What happens if a value does not meet any of the conditions expressed in the CASE statement?

3) Using the Person.Person table, complete a CASE statement that returns the string "Long Name" if the FirstName column is at least ten characters long. If the FirstName column is less than ten characters, return the string "Short Name".

4) Find out how many sales in Sales.SalesOrderHeader fell into the following ranges: "$0 to $149.99", "$150 – 499.99", "$500 to $4,999.99", "$5,000 - $24,999.99", and "Over $25,000". Only analyze sales that had a sales person associated with them.

5) Using the Production.Product table, if the value in Color column is NULL then return the string "No Color". If a color exists, then return that color. Complete this request two ways: once with a CASE statement, and the second with a function we have previously discussed in this guide.

CASE Statements Lab Solutions

Question 1:

```sql
SELECT
        FirstName,
        LastName,
        CASE
                WHEN EmailPromotion = 0 THEN 'Promotion   1'
                WHEN EmailPromotion = 1 THEN 'Promotion   2'
                WHEN EmailPromotion = 2 THEN 'Promotion   3'
        END AS PromotionName
FROM Person.Person
```

Question 2:

If a value does not meet any of the conditions in a CASE statement, the output to be returned will be a NULL value.

Question 3:

```sql
SELECT
        CASE
                WHEN LEN(FirstName) >= 10 THEN 'Long Name'
                ELSE 'Short Name'
        END
FROM Person.Person
```

Question 4:

```sql
WITH SalesRanges
AS (
        SELECT
                CASE
                        WHEN TotalDue BETWEEN 0 AND 149.99
                                THEN '$0 to $149.99'
                        WHEN TotalDue BETWEEN 150 AND 499.99
                                THEN '$150 to $499.99'
                        WHEN TotalDue BETWEEN 500 AND 4999.99
                                THEN '$500 to $4,999.99'
                        WHEN TotalDue BETWEEN 5000 AND 24999.99
                                THEN '$5,000 to $24,999.99'
                        ELSE 'Over $25,000'
                END AS SalesPriceRange,
                SalesOrderID
        FROM Sales.SalesOrderHeader
        WHERE SalesPersonID IS NOT NULL
)

SELECT
        SalesPriceRange,
        COUNT(*)
FROM SalesRanges
GROUP BY SalesPriceRange
```

Question 5:

```sql
SELECT
        CASE
                WHEN Color IS NULL THEN 'No Color'
                ELSE Color
        END AS Color
FROM Production.Product

SELECT
        COALESCE(Color, 'No Color')
FROM Production.Product
```