Write queries to help you answer the following questions:

1. What are the top three states in which we have the most stores? **North Carolina (22), Ohio (14) and Maryland (13)**

```
SELECT territory, COUNT(territory)

FROM stores

GROUP by 1

ORDER by 2 DESC;
```

2. What are the bottom three states in which we have the least total store square footage? **Delaware (20,000 square ft), Kentucky (60,000 square ft), and Tennessee (60,000 square ft).**

```
SELECT territory, SUM(sellingareasize)

FROM stores

GROUP by 1

ORDER by 2;
```

3. Which states have been targeted for store openings between 2010 and 2014? **North Carolina (18), Ohio (10), Georgia (8), Virginia (6), Pennsylvania (6), South Carolina (5), West Virginia (3), Delaware (2), Maryland (2), and Tennessee (2).**

```
SELECT territory, COUNT(opendate)

FROM stores

WHERE opendate BETWEEN '2010-01-01' AND '2014-12-31'

GROUP BY 1

ORDER BY 2 DESC;
```

How many stores have been opened in these states during that same time period? 62

```
SELECT COUNT(opendate)

FROM stores

WHERE opendate BETWEEN '2010-01-01' AND '2014-12-31';
```

4. Review the average square footage of stores opened by year. Comment on any trends you identify over the years. **Stores in 2005 started smaller and grew for two straight years into the mid 30,000 square feet. For the next four years, they fluctuated through the 20,000 square foot range. The compressed drastically in 2012 to its smallest size ever at around 13,000 square feet. Then a steady climb the last two years up to 32,000 square feet.**

```
SELECT DATE_PART('year', opendate), ROUND(avg(sellingareasize), 2) AS storesize
FROM stores
GROUP by 1
ORDER by 1;
```

5. Classify the stores as follows. *(Hint: Use a CASE statement.)*
   a. Stores with less than 15,000 sq. ft.: “smallstore.”
   b. Stores between 15,000 and 50,000 sq. ft.: “typicalstore.”
   c. Stores with more than 50,000 sq. ft.: “superstore.”

```
SELECT name,
        CASE
        WHEN sellingareasize < 15000 THEN 'SMALLSTORE'
        WHEN sellingareasize between 15000  AND 50000 THEN 'TYPICALSTORE'
        ELSE 'SUPERSTORE'
        END AS STORECLASIFICATION
FROM stores;
```

6. Based on your store classification from the previous question, how many of each type of store are there? *(Hint: Use the CASE statement you wrote as part of a subquery.)* **There are 13 Superstores, 39 Typical stores and 52 Small stores.**

```
SELECT STORECLASIFICATION, COUNT(*)
FROM
(
SELECT name,
        CASE
        WHEN sellingareasize < 15000 THEN 'SMALLSTORE'
        WHEN sellingareasize between 15000  AND 50000 THEN 'TYPICALSTORE'
        ELSE 'SUPERSTORE'
        END AS STORECLASIFICATION
```

```
FROM stores
) AS A
GROUP BY 1
ORDER BY 2;
```

7. What are the top five cities by total sales? **Charleston, WV, Harrisburg, PA, Huntington, WV, Abington, MD, North Canton, OH.**

```
SELECT city, ROUND(CAST(SUM(regular_sales_dollars) AS DECIMAL),2)
FROM stores s
JOIN sales sa on s.locationid = CAST(sa.locationid AS DECIMAL)
GROUP BY 1
Order BY 2 DESC
LIMIT 5;
```

8. What are the top five most profitable districts? **FD-04, FD-01, FD-03, FD-02, LI-04**

```
SELECT district, ROUND(CAST(SUM(grossmarginamount) AS DECIMAL),2)
FROM stores s
    JOIN sales sa on s.locationid = CAST(sa.locationid AS DECIMAL)
    JOIN district d on s.dm = d.dm
GROUP BY 1
Order BY 2 DESC
LIMIT 5;
```

9. What are the three stores/cities that have made the least amount of profit for the year? **The three cities that have made the lowest amount of profit are: Pasadena, MD, Knoxville, TN and Ralegh, NC.**

```
SELECT distinct sa.locationid, city, ROUND(CAST(SUM(grossmarginamount) AS DECIMAL),2)
FROM stores s
JOIN sales sa on s.locationid = CAST(sa.locationid AS DECIMAL)

GROUP BY 1, 2
```

Order BY 3

LIMIT 3;

Based on your analysis, **how should the business approach opening more stores in the future?**

Based on my analysis I would say that size matters! I would recommend looking for locations that would support stores that are categorized as a SUPERSTORES. The query below reviled that the top five cities by total sales all have average stores size classification as SUPERSTORES. The same query also identified that the three least profitable cities have average store size classification that are categorized as SMALL STORES.

I would also add that the company has already implemented the recommendation above. They have not added many stores in TN, MD, or DE in the last four years where they either have a small foot print in terms of size or cities that are least profitable.

```
SELECT cityname, Round(CAST(AVG(sellingareasize)AS DECIMAL),2)

FROM stores

GROUP BY cityname

ORDER BY 2 DESC;
```