

**Using your report from Part 2, complete the following steps:**

**1) In the DATA view, add the following calculated columns:**

- In the **Calendar** table, add a column named "**Weekend**"
  - Equals "**Y**" for Saturdays or Sundays (otherwise "**N**")
- In the **Calendar** table, add a column named "**End of Month**"
  - Returns the last date of the current month for each row
- In the **Customers** table, add a column named "**Current Age**"
  - Calculates current customer ages using the "*birthdate*" column and the TODAY() function
- In the **Customers** table, add a column named "**Priority**"
  - Equals "**High**" for customers who own homes and have Golden membership cards (otherwise "**Standard**")
- In the **Customers** table, add a column named "**Short\_Country**"
  - Returns the first three characters of the customer country, and converts to all uppercase
- In the **Customers** table, add a column named "**House Number**"
  - Extracts all characters/numbers before the first space in the "*customer\_address*" column (*hint: use SEARCH*)
- In the **Products** table, add a column named "**Price\_Tier**"
  - Equals "**High**" if the retail price is >\$3, "**Mid**" if the retail price is >\$1, and "**Low**" otherwise
- In the **Stores** table, add a column named "**Years\_Since\_Remodel**"
  - Calculates the number of years between the current date (TODAY()) and the last remodel date

**2) In the REPORT view, add the following measures (Assign to tables as you see fit, and use a matrix to match the "spot check" values)**

- Create new measures named "**Quantity Sold**" and "**Quantity Returned**" to calculate the sum of quantity from each data table
  - **Spot check:** You should see total Quantity Sold = **833,489** and total Quantity Returned = **8,289**
- Create new measures named "**Total Transactions**" and "**Total Returns**" to calculate the count of rows from each data table
  - **Spot check:** You should see **269,720** transactions and **7,087** returns
- Create a new measure named "**Return Rate**" to calculate the ratio of quantity returned to quantity sold (format as %)
  - **Spot check:** You should see an overall return rate of **0.99%**
- Create a new measure named "**Weekend Transactions**" to calculate transactions on weekends
  - **Spot check:** You should see **76,608** total weekend transactions

- Create a new measure named "**% Weekend Transactions**" to calculate weekend transactions as a percentage of total transactions (format as %)
  - **Spot check:** You should see **28.4%** weekend transactions
- Create new measures named "**All Transactions**" and "**All Returns**" to calculate grand total transactions and returns (regardless of filter context)
  - **Spot check:** You should see **269,720** transactions and **7,087** returns across all rows (test with *product\_brand* on rows)
- Create a new measure to calculate "**Total Revenue**" based on transaction quantity and product retail price, and format as \$ (*hint: you'll need an iterator*)
  - **Spot check:** You should see a total revenue of **\$1,764,546**
- Create a new measure to calculate "**Total Cost**" based on transaction quantity and product cost, and format as \$ (*hint: you'll need an iterator*)
  - **Spot check:** You should see a total cost of **\$711,728**
- Create a new measure named "**Total Profit**" to calculate total revenue minus total cost, and format as \$
  - **Spot check:** You should see a total profit of **\$1,052,819**
- Create a new measure to calculate "**Profit Margin**" by dividing total profit by total revenue calculate total revenue (format as %)
  - **Spot check:** You should see an overall profit margin of **59.67%**
- Create a new measure named "**Unique Products**" to calculate the number of unique product names in the **Products** table
  - **Spot check:** You should see **1,560** unique products
- Create a new measure named "**YTD Revenue**" to calculate year-to-date total revenue, and format as \$
  - **Spot check:** Create a matrix with "**Start of Month**" on rows; you should see **\$872,924** in YTD Revenue in September 1998
- Create a new measure named "**60-Day Revenue**" to calculate a running revenue total over a 60-day period, and format as \$
  - **Spot check:** Create a matrix with "**date**" on rows; you should see **\$97,570** in 60-Day Revenue on 4/14/1997
- Create new measures named "**Last Month Transactions**", "**Last Month Revenue**", "**Last Month Profit**", and "**Last Month Returns**"
  - **Spot check:** Create a matrix with "**Start of Month**" on rows to confirm accuracy
- Create a new measure named "**Revenue Target**" based on a 5% lift over the previous month revenue, and format as \$
  - **Spot check:** You should see a Revenue Target of **\$99,223** in March 1998
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