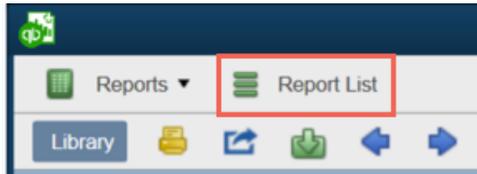


Exercise #6: Sales by Item Year over Year Report

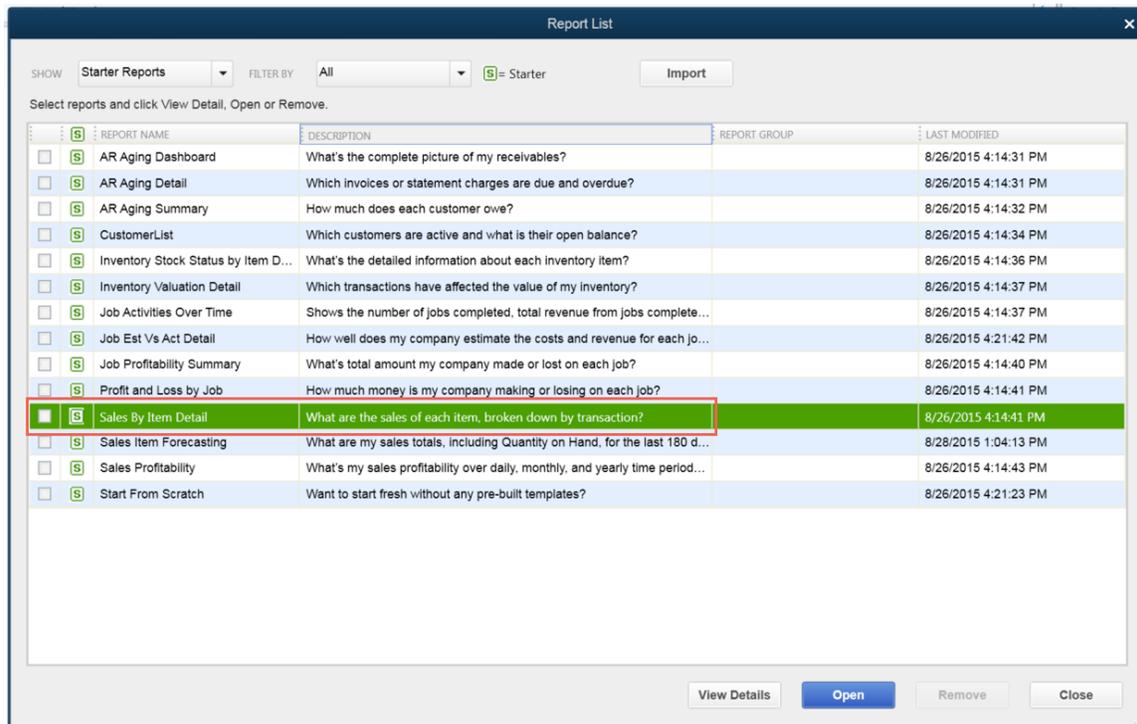
Objective – create a report that shows (by product) how many were sold and how much revenue you generated in sales over the last 3 years.

Step 1: Edit existing chart in template to show sold amounts for last three years.

1. Click on **Report List**.



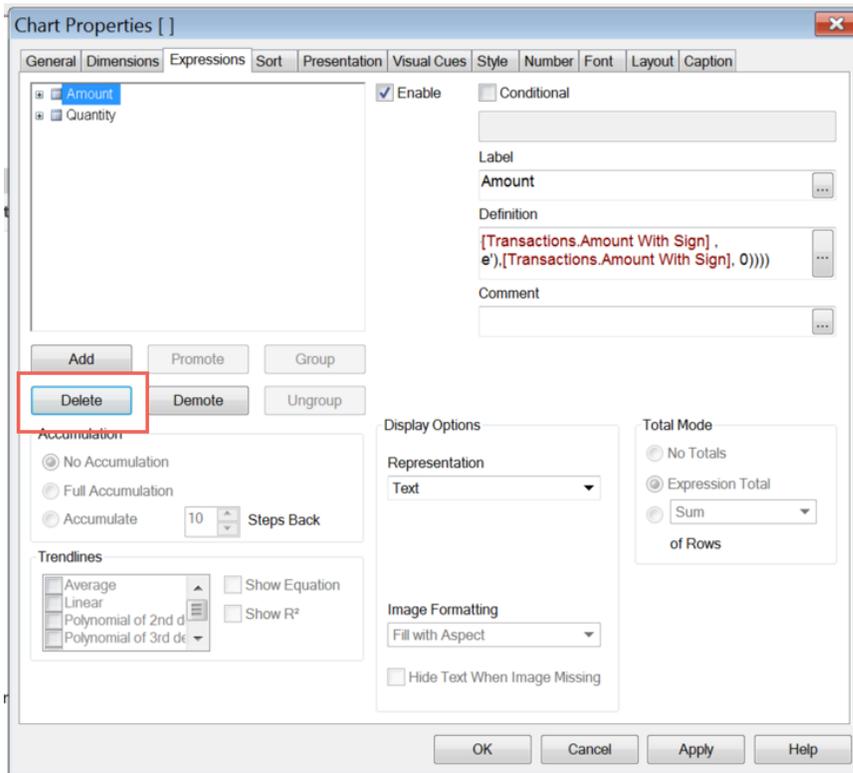
2. Select **Sales by Item Detail** report.
3. Double-click the template or click **Open**.



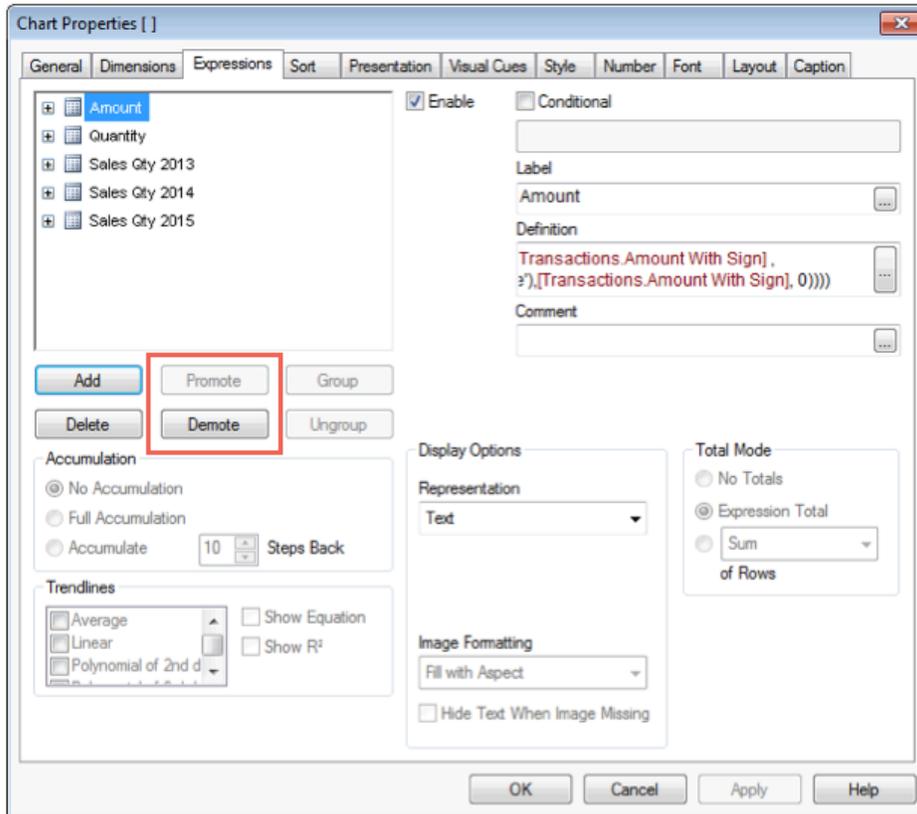
4. Right-click on main table and select **Properties**.

Item Type	Item	Tx	Num	Mem
		Inv	011	985 Cabi
		Inv	011	992 Cabi
		Inv	012	1002 Cabi
		Inv	013	1028 Cabi
		Inv	013	1096 Cabi
		Inv	013	1095 Cabi
		Invoice	12/14/2013	1094 Cabi
		Total		
		Invoice	12/01/2011	985 Light

5. In the Expressions tab, use **Delete** to remove some expressions. Keep only the following expressions:
 - a. Amount
 - b. Quantity



6. Use **Add** to add 3 new expressions to represent the Sales Quantity over the past 3 years. These expressions are parameterized and use set analysis:

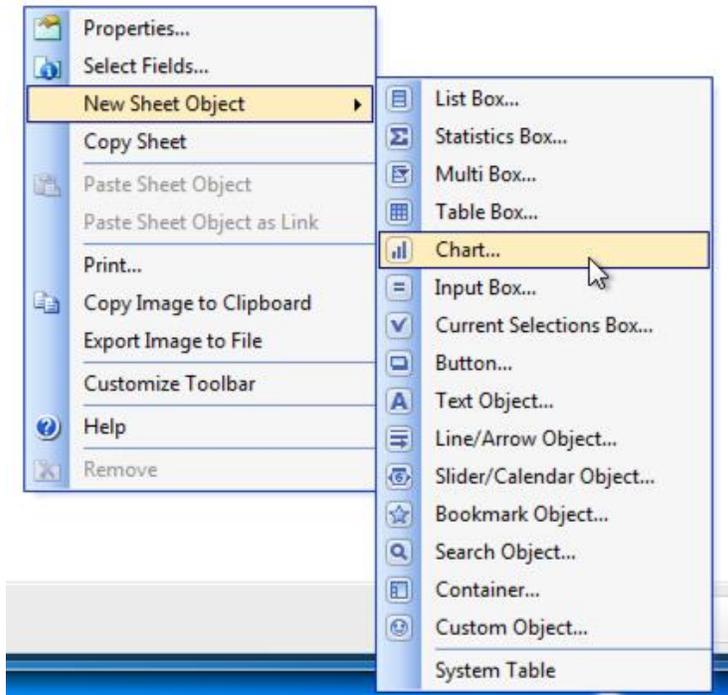


8. Click **OK** to see your chart.

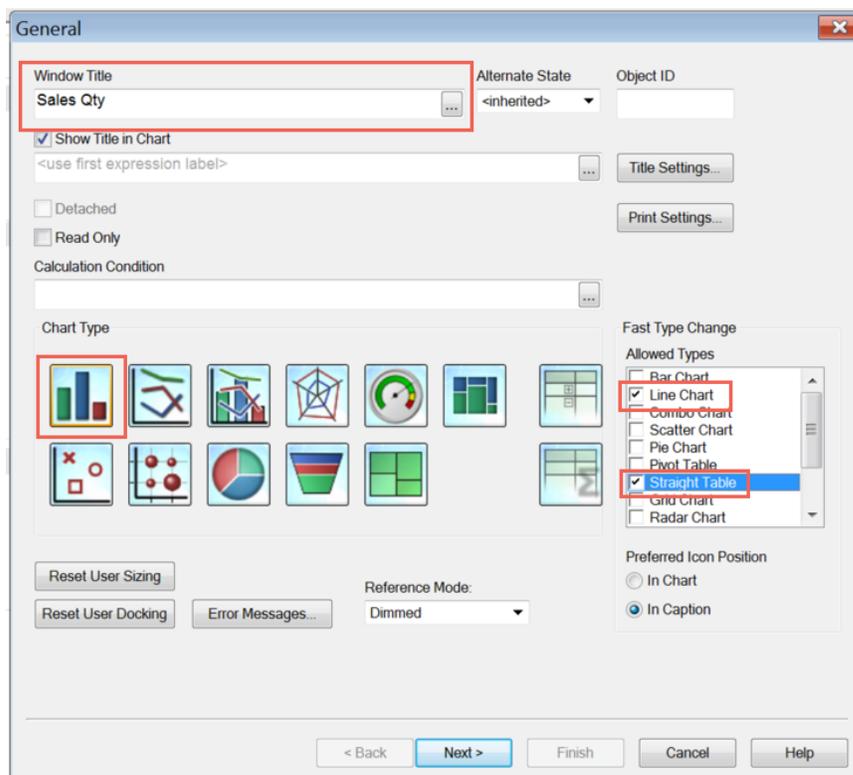
Item Type	Item	Txn Type	Amount	Quantity	Qty Sold 2013 YTD	Qty Sold 2014 YTD	Qty Sold 2015 YTD
Cabinets		Invoice	400.00	8	0	0	8
		Invoice	200.00	4	0	0	4
		Total	600.00	12	0	0	12
Cabinets:Cabinet Pulls		Invoice	118.80	6	0	0	0
		Invoice	118.80	6	0	0	0
		Invoice	61.20	17	0	0	0
		Invoice	227.80	4	4	0	0
		Invoice	52.91	26	0	0	0
		Invoice	52.91	26	0	0	0

Step 2: Create a bar chart that shows the quantity sold of all products over the last 3 years to date

1. Right-click on any white space and select **New Sheet Object > Chart**.

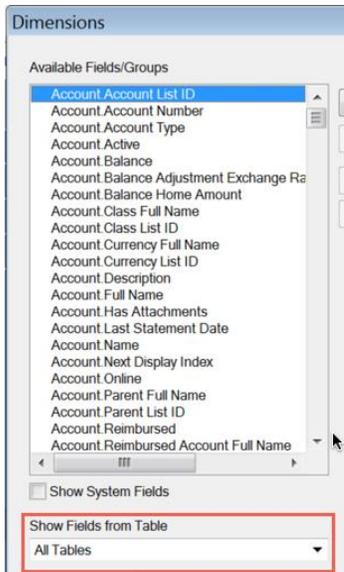


2. In the General window, select **Bar Chart** and then also select **Line Chart** and **Straight Table** (under Fast Type Change).

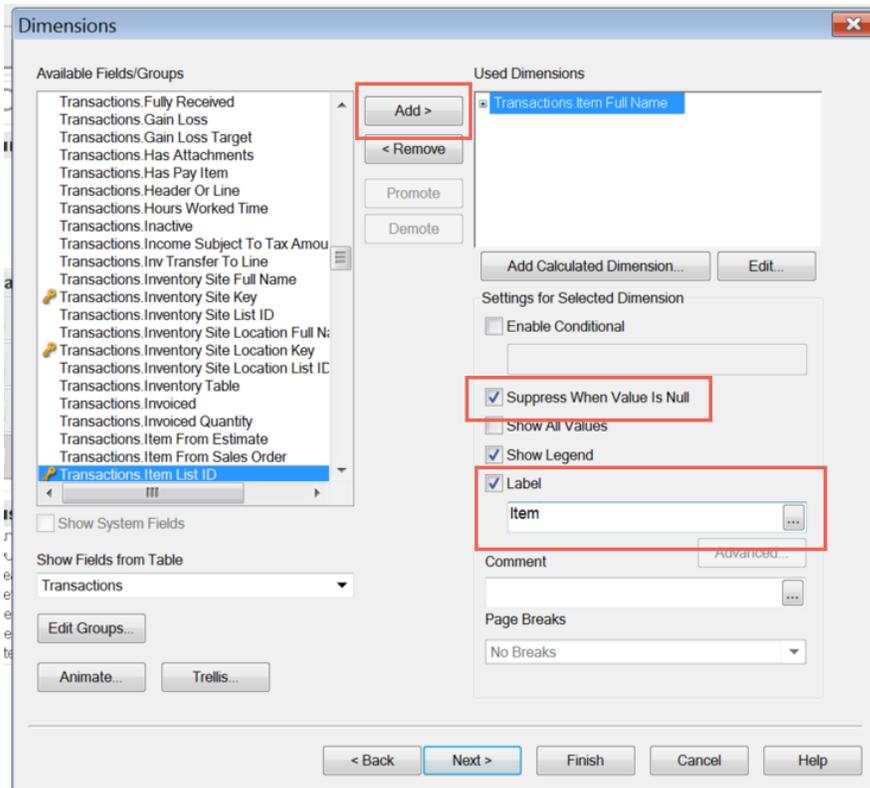


3. Click **Next**.

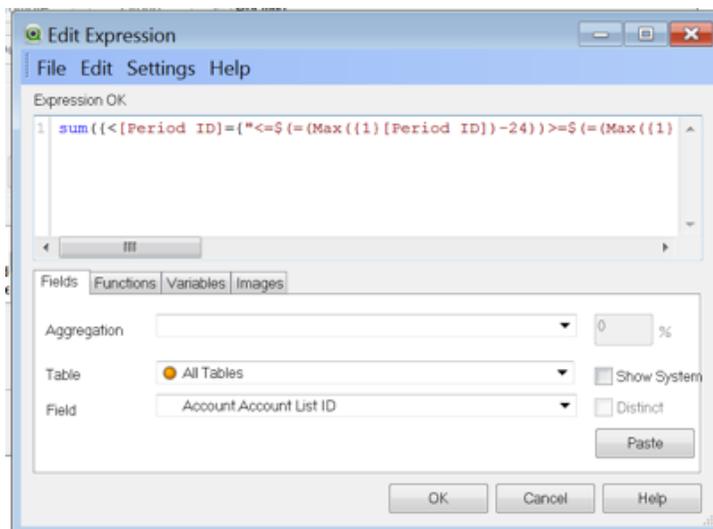
4. In the Dimensions window, look at the list of Available Fields/Groups. Tip: Either scroll through the list or use **Show Fields from Table** to narrow down the fields you want to add as dimensions (the next step has the specific ones we'll use for this exercise).



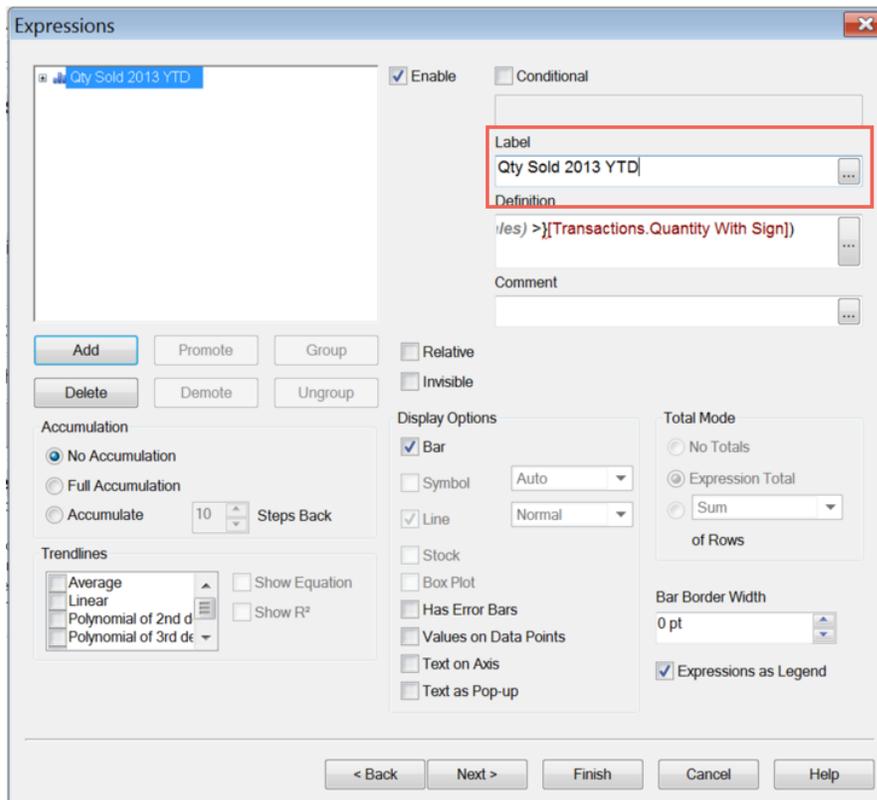
5. Add the following dimensions, label the column, and specify that you don't want to see anything that doesn't have a value:
- Transactions.Item Full Name
 - Enter **Item** in Label.
 - Select **Suppress When Value is Null**.



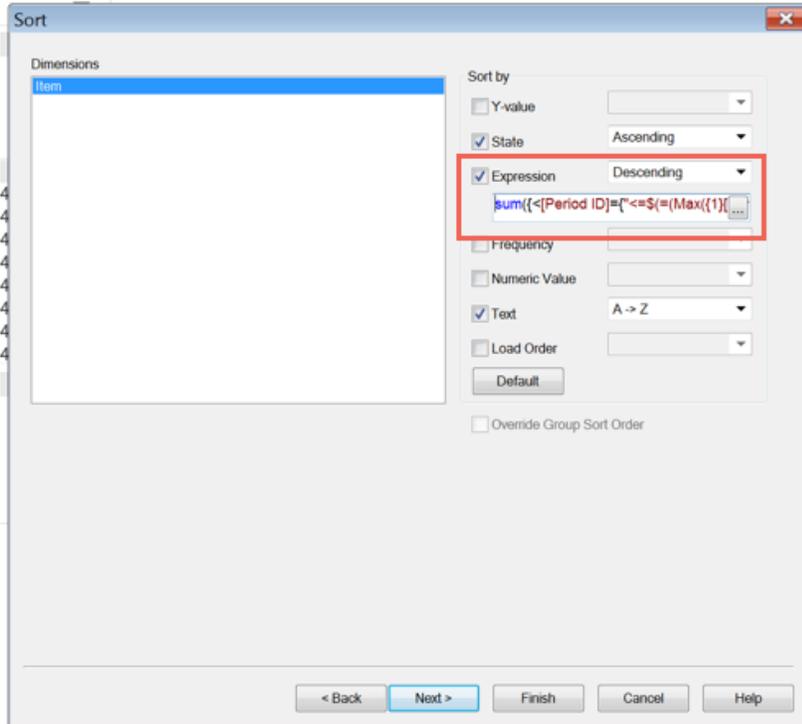
6. Click **Next**.
7. In the Edit Expression window that pops up, type the following expression:
 - a. `sum({<[Period ID]={"<=${(Max({1}[Period ID])-24)}>=${(Max({1}[Period ID])-29)"}", Year=, Quarter=, [Transactions.Txn Date]=, Month=, Period=, Week=, Day=, [Quarter ID]=, [Month Year]=, [Quarter Year]=, $(vExprSales) >}[Transactions.Quantity With Sign])`



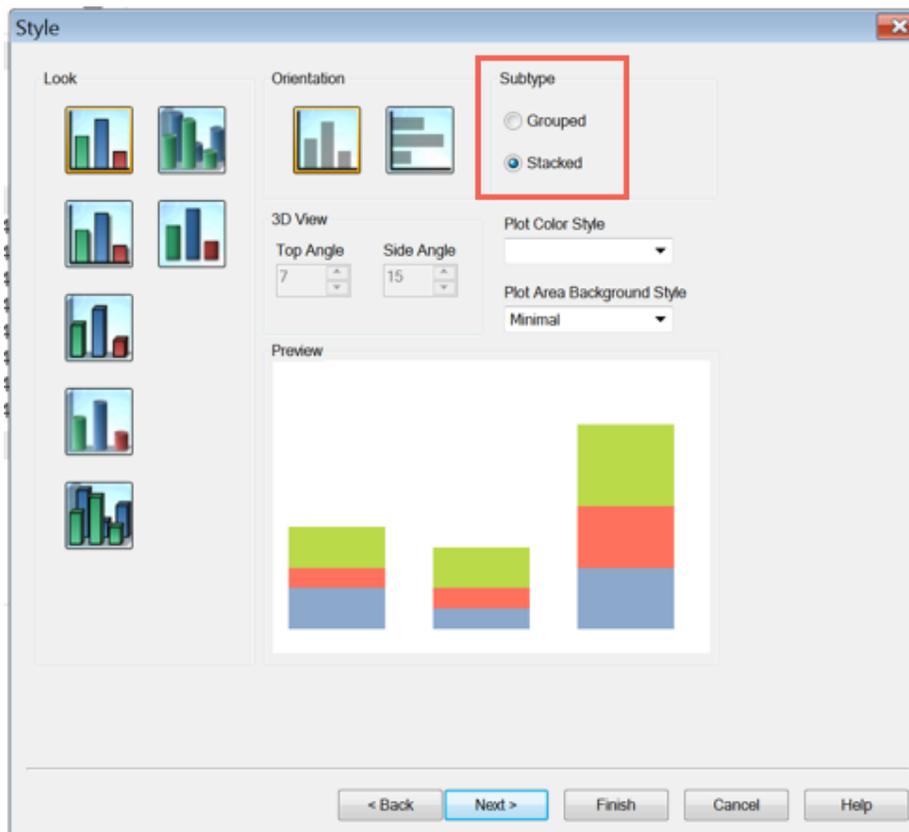
8. Click **OK**.
9. Enter **Qty Sold 2013 YTD** in label.



10. Click **Add** and enter the following expressions. Tip: To work faster, you can copy and paste the expressions to reuse them. Just click the expression, copy it, and then click a blank space in the expression list and paste it.
 - a. $sum(\{<[Period ID]=\{<=$Max(\{1\}[Period ID])$-12)\}>=$Max(\{1\}[Period ID])$-17)\}, Year=, Quarter=, [Transactions.Txn Date]=, Month=, Period=, Week=, Day=, [Quarter ID]=, [Month Year]=, [Quarter Year]=, $\$(vExprSales)>\}$ [Transactions.Quantity With Sign])$
 - i. Enter **Qty Sold 2014 YTD** in label.
 - b. $sum(\{<[Period ID]=\{<=$Max(\{1\}[Period ID])$-0)\}>=$Max(\{1\}[Period ID])$-5)\}, Year=, Quarter=, [Transactions.Txn Date]=, Month=, Period=, Week=, Day=, [Quarter ID]=, [Month Year]=, [Quarter Year]=, $\$(vExprSales)>\}$ [Transactions.Quantity With Sign])$
 - i. Enter **Qty Sold 2015 YTD** in label.
11. Click **Next**.
12. In the Sort window, check **Expression**.
13. Select **Descending**.
14. In the text box under Expression, enter this expression (it adds together the total sales over all 3 years by summing up all your expressions). Tip: Click [...] next to the blank field to open the Edit Expression window:
 - a. $sum(\{<[Period ID]=\{<=$Max(\{1\}[Period ID])$-0)\}>=$Max(\{1\}[PeriodID])$-29)\}, Year=, Quarter=, [Transactions.Txn Date]=, Month=, Period=, Week=, Day=, [Quarter ID]=, [Month Year]=, [Quarter Year]=, $\$(vExprSales)>\}$ [Transactions.Quantity With Sign])$



15. In the Style window, select **Stacked** (under Subtype).



16. Click **Finish** to see the report.

17. Make some formatting changes to make the report look the way you want:
- Add a title (**Library > Text and Utility > Title**)
 - Change the title (Right-click on **Report Title > Properties**)
 - Add a scroll bar (**Right-click > Properties > Presentation tab > Chart Scrolling section > Enable X-axis**)
 - Add the **Item Type** List Box from the Library to explore sales by Item Type easily

