

Video #23 Homework

1. Although there will be more videos in the MSPTDA class, this is the last Homework problem for you to practice with. This project will test to see if you are a true Worksheet Formula, DAX Formulas and Power Query Ninja. The goal is to solve the problem three ways:
 - a. Worksheet Formula way
 - b. DAX Formula with Data Model PivotTable way
 - c. Power Query way
2. This is no posted solution for this, like there has been for all the other MSPTDA homework problems. However, if you want a solution e-mailed to you, send an e-mail to excelisfun@gmail.com and ask for a solution for MSPTDA Homework #23.
3. The source tables are in the Excel Workbook file named "HomeworkVideo023-SourceTables.xlsx".
4. The Excel Tables, which you can use for your DAX / Data Model and Power Query Solutions are on the Worksheet named "ExcelTablesfor DAXandPowerQuery", and they look like this:

<p>fInvoiceHeader = Invoice Fact Table = Invoice Level/Grain Dimension Table for fLineItemInvoiceDetail One Side for fLineItemInvoiceDetail Fact Table</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Invoice Num</th> <th>SalesRepID</th> <th>Shipping C</th> <th>Invoice Disc</th> </tr> </thead> <tbody> <tr><td>5/12/19</td><td>5814</td><td>6</td><td>487</td><td>249</td></tr> <tr><td>5/12/19</td><td>5815</td><td>3</td><td>336.5</td><td>186</td></tr> <tr><td>5/12/19</td><td>5816</td><td>5</td><td>911</td><td>856</td></tr> <tr><td>5/13/19</td><td>5817</td><td>6</td><td>411</td><td>340</td></tr> <tr><td>5/13/19</td><td>5818</td><td>5</td><td>769.5</td><td>562</td></tr> <tr><td>5/13/19</td><td>5819</td><td>2</td><td>295.5</td><td>61</td></tr> <tr><td>5/13/19</td><td>5820</td><td>5</td><td>598.5</td><td>591</td></tr> <tr><td>5/14/19</td><td>5821</td><td>6</td><td>119</td><td>521</td></tr> <tr><td>5/14/19</td><td>5822</td><td>1</td><td>59.5</td><td>155</td></tr> <tr><td>5/14/19</td><td>5823</td><td>5</td><td>238</td><td>602</td></tr> </tbody> </table>	Date	Invoice Num	SalesRepID	Shipping C	Invoice Disc	5/12/19	5814	6	487	249	5/12/19	5815	3	336.5	186	5/12/19	5816	5	911	856	5/13/19	5817	6	411	340	5/13/19	5818	5	769.5	562	5/13/19	5819	2	295.5	61	5/13/19	5820	5	598.5	591	5/14/19	5821	6	119	521	5/14/19	5822	1	59.5	155	5/14/19	5823	5	238	602	<p>fLineItemInvoiceDetail = Line Item Invoice Detail Fact Table = Line Item Level/Grain Fact Table for fInvoiceHeader Fact Table for dProduct</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Invoice Num</th> <th>ProductID</th> <th>Quanti</th> <th>Unit Price</th> </tr> </thead> <tbody> <tr><td>5814</td><td>1</td><td>87</td><td>17.47</td></tr> <tr><td>5814</td><td>2</td><td>59</td><td>20.21</td></tr> <tr><td>5814</td><td>3</td><td>51</td><td>22.46</td></tr> <tr><td>5814</td><td>4</td><td>52</td><td>25.46</td></tr> <tr><td>5815</td><td>4</td><td>186</td><td>20.29</td></tr> <tr><td>5816</td><td>1</td><td>277</td><td>13.16</td></tr> <tr><td>5816</td><td>2</td><td>246</td><td>14.22</td></tr> <tr><td>5816</td><td>3</td><td>276</td><td>15.8</td></tr> <tr><td>5816</td><td>4</td><td>57</td><td>25.46</td></tr> <tr><td>5817</td><td>2</td><td>105</td><td>18.87</td></tr> <tr><td>5817</td><td>3</td><td>235</td><td>15.8</td></tr> <tr><td>5818</td><td>2</td><td>270</td><td>14.22</td></tr> <tr><td>5818</td><td>3</td><td>65</td><td>22.46</td></tr> <tr><td>5818</td><td>4</td><td>227</td><td>17.91</td></tr> <tr><td>5819</td><td>1</td><td>61</td><td>18.71</td></tr> <tr><td>5820</td><td>2</td><td>119</td><td>18.87</td></tr> <tr><td>5820</td><td>3</td><td>285</td><td>15.8</td></tr> <tr><td>5820</td><td>4</td><td>187</td><td>20.29</td></tr> <tr><td>5821</td><td>1</td><td>285</td><td>13.16</td></tr> <tr><td>5821</td><td>2</td><td>236</td><td>14.22</td></tr> <tr><td>5822</td><td>3</td><td>155</td><td>18.72</td></tr> <tr><td>5823</td><td>1</td><td>112</td><td>17.47</td></tr> <tr><td>5823</td><td>2</td><td>243</td><td>14.22</td></tr> <tr><td>5823</td><td>3</td><td>65</td><td>22.46</td></tr> <tr><td>5823</td><td>4</td><td>182</td><td>20.29</td></tr> </tbody> </table>	Invoice Num	ProductID	Quanti	Unit Price	5814	1	87	17.47	5814	2	59	20.21	5814	3	51	22.46	5814	4	52	25.46	5815	4	186	20.29	5816	1	277	13.16	5816	2	246	14.22	5816	3	276	15.8	5816	4	57	25.46	5817	2	105	18.87	5817	3	235	15.8	5818	2	270	14.22	5818	3	65	22.46	5818	4	227	17.91	5819	1	61	18.71	5820	2	119	18.87	5820	3	285	15.8	5820	4	187	20.29	5821	1	285	13.16	5821	2	236	14.22	5822	3	155	18.72	5823	1	112	17.47	5823	2	243	14.22	5823	3	65	22.46	5823	4	182	20.29
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5. The Spreadsheet tables for your Excel solutions are the same, but on a sheet where the data has not been converted to Excel Tables. These tables are on the Excel Worksheet named "TablesForWorksheetFormulas".

6. Your goal is to create a report that shows Product in the Row Area and Totals for Sales, Shipping and Discount. The methods that you learn in video #23 can be used here. Here is of the three reports that I created:

a. Excel Worksheet Formulas:

Product	Toatl Sales	Total Shipping	Total Discounts
Bellen	12013.76	761.352868	914.1245828
Carlota	19568.17	1205.949437	926.863973
Quad	18101.66	1012.602516	869.8620897
Sunbell	19543.66	1143.095179	1514.649354
Totals	69227.25	4123	4225.5

b. DAX and Data Model PivotTable:

Name	Total Sales	Total Discounts	Total Shipping Costs
Bellen	\$12,013.76	\$761.35	\$914.12
Carlota	\$19,568.17	\$1,205.95	\$926.86
Quad	\$18,101.66	\$1,012.60	\$869.86
Sunbell	\$19,543.66	\$1,143.10	\$1,514.65
Grand Total	\$69,227.25	\$4,123.00	\$4,225.50

c. Power Query in Power BI Desktop and a Matrix Visual:

Name	Total Sales	Total Shipping Costs	Total Discounts
Bellen	\$12,013.76	\$914.12	761.35
Carlota	\$19,568.17	\$926.86	1,205.95
Quad	\$18,101.66	\$869.86	1,012.60
Sunbell	\$19,543.66	\$1,514.65	1,143.10
Total	\$69,227.25	\$4,225.50	4,123.00