

Excel Review

Excel Terminology

File = Workbook 	Tab = Worksheet 	Columns & Rows 	Formula - User defined equation using numbers and/or cell references
Cell 	Range 	Cell Reference 	Function - Predefined equations in Excel that perform various operations on the inputs they are provided
Absolute Reference 	Mixed Reference 	Merged Cells 	Macro – Custom user created functions using Visual Basic coding language

Formula Operators

ARITHMETIC OPERATORS

+	Add	= 10 + 5	Result = 15
-	Subtract	= 10 - 5	Result = 5
*	Multiply	= 10 * 5	Result = 50
/	Divide	= 10 / 5	Result = 2
^	Power	= 10 ^ 5	Result = 100,000
()	Order of Operations	= ((5 + 5) ^ 5)	Result = 100,000

LOGIC OPERATORS

>	Greater than	= 10 > 5	Result = TRUE
>=	Greater than or Equal to	= 10 >= 5	Result = TRUE
=	Equal to	= 10 = 5	Result = FALSE
<=	Less than or Equal to	= 10 <= 5	Result = FALSE
<	Less than	= 10 < 5	Result = FALSE
<>	Not Equal to	= 10 <> 5	Result = TRUE

Common Formulas and Functions

MATH FUNCTIONS

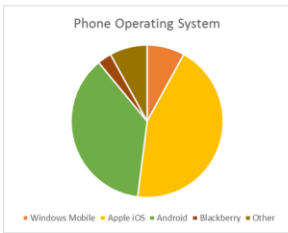
- =Sum(B1:B20)
Adds together all numbers in range
- =Count(B1:B20)
Counts all numeric values in range
- =CountA(B1:B20)
Counts all non-empty cells in range
- =Average(B1:B20)
Calculates average of numbers in range
- =SumProduct(B1:B20, C1:C20)
Calculates sum of the range members multiplied

LOGIC/CONDITIONAL FUNCTIONS

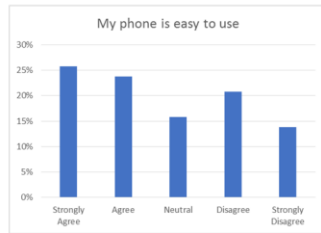
- =If (10 > 5, "Good", "Bad")
Result = "Good"
- =And (10 >= 5, 4 > 10)
Result = FALSE
- =Or (10 = 5, 4 = 4)
Result = TRUE
- =Countifs(Criteria Range, Criteria)
- =Sumlfs(Numeric Range, Criteria Range, Criteria)
- =Averagelfs(Numeric Range, Criteria Range, Criteria)

Types of Charts and Graphs

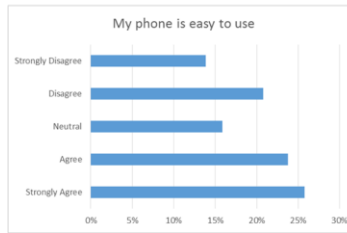
PIE CHART



COLUMN CHART



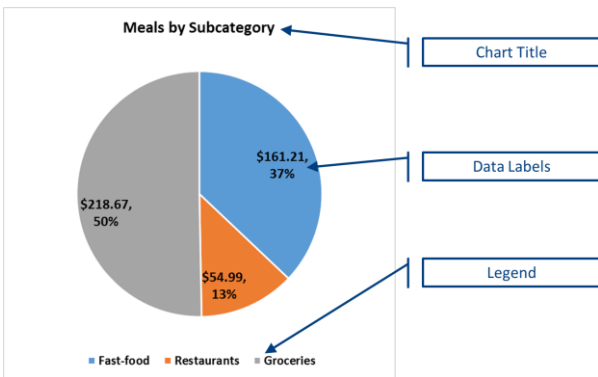
BAR CHART



LINE GRAPH of TIME SERIES DATA



Elements of Charts and Tables



Date	Vendor	Category	Sub-category	Amount
12/5/2015	Pace - Cafeteria	Meals	Fast-food	5.6
12/3/2015	Uber	Transportation	Automobile	43.9
11/7/2015	MTA - Subway	Transportation	Subway/Rail	2.75
12/7/2015	TKTS	Entertainment	Movies/Live Shows	78.85
12/7/2015	Chipotle	Meals	Fast-food	13.18
12/26/2015	MTA - Subway	Transportation	Subway/Rail	2.75
11/4/2015	MTA - Subway	Transportation	Subway/Rail	2.75
12/3/2015	iTunes - Songs	Entertainment	Music/Audio	0.99
11/26/2015	Target	Shopping	Homegoods	49.52
12/18/2015	Marshall's	Shopping	Clothing	68.9
12/22/2015	MTA - Subway	Transportation	Subway/Rail	2.75
12/12/2015	Pace - Cafeteria	Meals	Fast-food	8.86
12/27/2015	Marshall's	Shopping	Clothing	47.28
11/4/2015	MTA - Subway	Transportation	Subway/Rail	2.75
12/29/2015	Pace - Cafeteria	Meals	Fast-food	5.93
12/12/2015	Chipotle	Meals	Fast-food	12.91
12/23/2015	Westside Market	Meals	Groceries	33.94
12/17/2015	iTunes - Songs	Entertainment	Music/Audio	1.99
Total				385.6

From Table to Pivot Table

The diagram illustrates the process of converting a data table into a PivotTable. It starts with a source table, followed by the PivotTable Fields task pane where fields are configured, and finally the resulting PivotTable.

Date	Vendor	Category	Sub-category	Amount
12/26/2015	Old Navy	Shopping	Electronics	29.27
11/5/2015	Netflix	Entertainment	TV/Streaming	7.99
11/9/2015	Pace - Cafeteria	Meals	Fast-food	5.6
11/4/2015	OliveGarden	Meals	Restaurants	15.47
11/9/2015	Applebee's	Meals	Restaurants	39.52
12/3/2015	Fairway	Meals	Groceries	34.74
12/22/2015	MTA - Subway	Transportation	Subway/Rail	2.75
11/28/2015	MTA - Subway	Transportation	Subway/Rail	2.75
12/1/2015	Bed, Bath & Beyond	Shopping	Homegoods	17.66
11/30/2015	MTA - Subway	Transportation	Subway/Rail	2.75
12/18/2015	Marshall's	Shopping	Clothing	68.9
12/13/2015	BestBuy	Shopping	Electronics	29.27
11/25/2015	Grk	Meals	Fast-food	10.88
12/25/2015	MTA - Subway	Transportation	Subway/Rail	2.75
12/11/2015	AMC Theaters	Entertainment	Movies/Live Shows	27.74
12/5/2015	Old Navy	Shopping	Clothing	22.09
11/14/2015	iTunes - Songs	Entertainment	Music/Audio	0.99
12/16/2015	Wendy's	Meals	Fast-food	8.86
12/29/2015	MTA - Subway	Transportation	Subway/Rail	2.75
12/21/2015	Marshall's	Shopping	Clothing	47.28

PivotTable Fields

- Filters: Years
- Columns: Months
- Rows: Category, Sub-category
- Values: Total, %

PivotTable

Row Labels	2015		2016	
	Total	%	Total	%
Meals				
Groceries	\$218.67	50.28%	\$180.99	35.76%
Fast-food	\$161.21	37.07%	\$211.66	41.82%
Restaurants	\$54.99	12.65%	\$113.43	22.41%
Meals Total	\$434.87	44.15%	\$506.08	33.34%
Transportation				
Automobile	\$99.74	37.62%	\$146.32	40.00%
Flights	\$129.62	48.89%		0.00%
Subway/Rail	\$35.75	13.48%	\$219.50	60.00%
Transportation Total	\$265.11	26.92%	\$365.82	24.10%
Entertainment				
Movies/Live Show	\$38.46	36.87%	\$144.06	65.81%
Music/Audio	\$36.89	35.37%	\$38.88	17.76%
TV/Streaming	\$28.96	27.76%	\$35.95	16.42%
Entertainment Total	\$104.31	10.59%	\$218.89	14.42%
Shopping				
Clothing	\$112.89	62.50%	\$252.52	59.14%
Electronics	\$18.21	10.08%	\$109.29	25.59%
Homegoods	\$49.52	27.42%	\$65.19	15.27%
Shopping Total	\$180.62	18.34%	\$427.00	28.13%
Grand Total	\$984.91	100.00%	\$1,517.79	100.00%