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Session 1:  
Introduction

# ADVANCED EXCEL 2016

## Goals for the Course:

### ***To Help You:***

1. Become more efficient
2. Help your coworkers
3. Become an Expert

## What's the Most Important Spreadsheet?

1. A Budget
2. A Ledger
3. A Budget Report

## Session 1 Objectives

- Format a Budget
- Create a Ledger
- Create a Pivot Table
- Create a Report with SUMIFS

## Questions:

- How many have a Budget?
- How many keep track of expense?
- How many have a Budget Report?



## Dwight D. Eisenhower

"In preparing for battle I have always found that plans are useless ...

but planning is indispensable."

## INTRODUCTION TO EXCEL

## How Do You Get Excel?

- Part of Microsoft Office
- Office 2016
  - Until recently, the latest version
    - Released Sept. 2015
  - Office Home & Student: \$129
- Office 365
  - Rental program
  - \$79/year for 5 users

## Excel 2019

- Released Sept. 24, 2018
- Includes features already added to Office 365

## Which Versions for the PC?

- Excel 2003 and earlier
- 
- Excel 2007
  - Excel 2010
  - Excel 2013
  - **Excel 2016**
  - Excel 2019

## What About the Mac?

- Similar, not quite the same — so far
- Single mouse button
- Command key vs Control key

## Excel for Free?

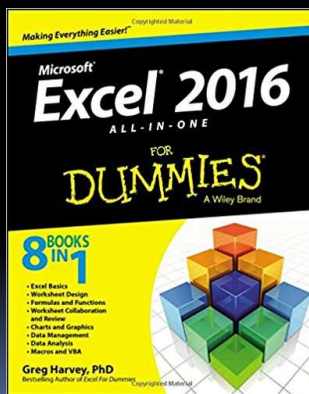
- Simple on-line version
  - [www.office.com](http://www.office.com)
- Limited tools
- Good for collaboration/groups

## Are There Any Alternatives?

- **LibreOffice or OpenOffice**
  - Download for free
- **Google Drive**
  - Online, limited, free
- **Apple Numbers**
  - Download and Online, free
  - Very different user interface

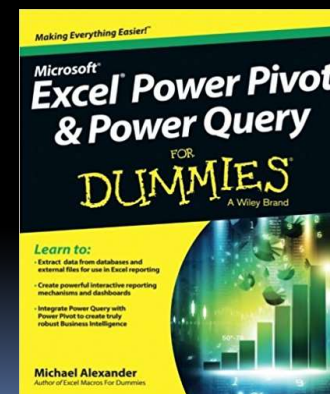
## SUGGESTED BOOKS

### Easy Read



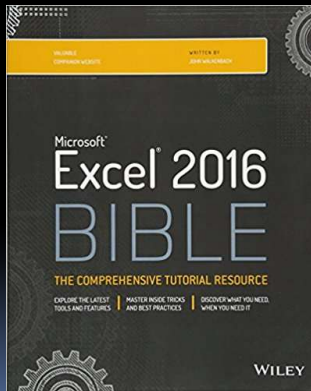
- Includes:
  - Power Pivot
  - Power Query
  - Macros
- Approx. \$28
  - 2019: \$40

### "Power Tools"



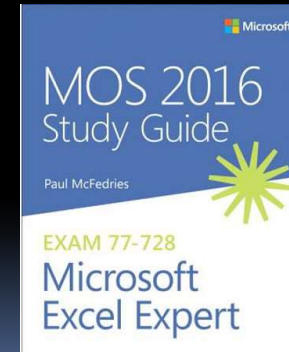
- \$19.53, Amazon

## Comprehensive Resource



- Over 1,100 pages
- By John Walkenbach, a.k.a. Mr. Spreadsheet
- Approx. \$27
  - 2019: \$43

## MOS Excel Expert Exam Guide



- Prepare for the Microsoft Office Specialist Exam
- Approx. \$21
  - 2019: to come

## ONLINE TRAINING

## Microsoft Training Videos

- Dozens of short videos
  - E.g., "IF Function"
- Go to:
  - <https://support.office.com/en-us/article/excel-for-windows-video-training-9bc05390-e94c-46af-a5b3-d7c22f6990bb>

## Lynda.com

- Now: "LinkedIn Learning"
- Hundreds of video courses
- Approx. \$30/month
- Free at some local libraries

## Universal Class

- Online courses
- Available at Norwalk Library

## Udemy.com

- Hundreds of courses
- About \$10 each



## "Excel Is Fun" — YouTube

- YouTube channel:
- Over 3,000 free videos
- Mike Girvin, Highline Commun. Coll.
  - Near Seattle, Washington



## Other Resources

- Google
- YouTube

## Excel Tables — Advantages

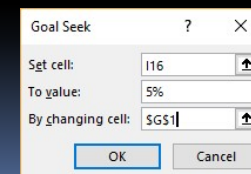
- Beautiful formats
- Automatic Total Rows
- Formulas automatically copied
- Dynamic
- Column names in formulas
- Filter easily with Slicers

## Absolute References (\$)

- Formula addresses to not change when copied
- Examples:
  - =\$B\$4      Freezes column & row
  - =\$B4        Freezes only column
  - =B\$4        Freezes only row
- Shortcut: F4 key

## Goal Seek

- Automatically changes one cell so that another achieves a certain result
- Click: Data > What-if > Goal Seek



## TEXT Function

`=TEXT(Value, Format Code)`

Example:

Cell B3: 4/1/18

`=TEXT(B3,"mmmm d, yyyy")`

Result: April 1, 2018

## TEXT Function Date Format Codes

Code	Possible Result
"m"	1
"mm"	01
"mmm"	Jan
"mmmm"	January
"d"	2
"dd"	02
"ddd"	Mon
"dddd"	Monday
"yy"	18
"yyyy"	2018

## SUMIFS Function

- Adds values that meet one or more conditions
- `=SUMIFS(sum_range, criteria_range1, criteria1, [criteria_range2, criteria2], ...)`
- Better than the SUMIF function
  - Which handles only one criterion

# REVIEW



Which Function will add up only those numbers linked to a particular category?

1. SUM
2. SUMIF
3. SUMIFS
4. SUBTOTAL

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Which Function will add up numbers linked to **two** particular categories?

1. SUM
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4. SUBTOTAL

Which Function will add up numbers linked to **two** particular categories?

1. SUM
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4. SUBTOTAL

What is the advantage of using an Excel Table?

1. Banded rows
2. Named ranges in formulas
3. Slicers
4. All of the above

What is the advantage of using an Excel Table?

1. Banded rows
2. Named ranges in formulas
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4. **All of the above**

**SUMMARY**

Use Excel Tables

Category	Jan	Feb	Mar	Apr	May	Jun	Total	% of Total
Rent	2,002	2,004	2,006	2,008	2,010	2,012	12,042	48.4%
Auto Loan	300	300	300	300	300	300	1,800	7.2%
Utilities	250	250	250	200	150	150	1,250	5.0%
Groceries	900	900	900	1,100	900	900	5,600	22.5%
TV	152	154	156	158	160	162	942	3.8%
Savings	202	202	202	202	202	230	1,239	5.0%
Misc	250	250	400	500	200	400	2,000	8.0%
Total	4,056	4,060	4,214	4,468	3,922	4,154	24,873	100.0%

## Use Slicers to Filter Data



## Use Pivot Tables to Summarize

Actual Expenses

Sum of Amount	Month			
Category	Jan	Feb	Mar	Grand Total
Auto Loan	300	300	300	900
Groceries	304	203	410	917
Misc	106	226	481	814
Rent	2,001	2,003	2,005	6,009
Savings	200	250	200	650
TV	151	153	155	459
Utilities	221	198	212	632
<b>Grand Total</b>	<b>3,283</b>	<b>3,333</b>	<b>3,764</b>	<b>10,380</b>

## Use SUMIFS for Reports

Category	Jan		
	Actual	Budget	% of Budget
Rent	2,001	2,002	100%
Auto Loan	300	300	100%
Utilities	221	250	88%
Groceries	304	900	34%
TV	151	152	99%
Savings	200	202	99%
Misc	106	250	42%
<b>Total</b>	<b>3,283</b>	<b>4,056</b>	<b>81%</b>

END