1. **Basics of formulas and functions**
   1. **Formula vs Function**
   2. **Basic arithmetic**
   3. **Comparison operators**
   4. **Working with text**
   5. **Elements of a function** 
      1. **RAND()**
      2. **FORMULATEXT()**
      3. **VLOOKUP()**
      4. **SUMIFS()**
   6. **Cell references**
2. Working with named ranges and tables
   1. Formula manager
   2. Benefits of named ranges
   3. Working with tables – Table time!
      1. Power Query vs formulas
3. Let’s get logical: IF(), SUMIF() and more
   1. IF() statement
   2. AND/OR/NOT
   3. Conditional IF statements
   4. IFS()
4. Dynamic arrays
   1. What are they?
   2. Some examples
   3. XLOOKUP() is the duct tape of Excel
   4. Dynamic plots with dynamic arrays
5. **Formula design & audit**
   1. **Building more readable functions**
      1. **White space!**
      2. **Do not repeat yourself**
      3. **Ditch nested Ifs()**
      4. **Don’t fear the helper column**
      5. **No hard codes**
   2. Ways to audit formulas
      1. Ctrl + `
      2. Formulatext
      3. Trace dependents
      4. Ctrl + Enter
      5. Partially evaluate with F9
6. LET(), LAMBDA() and the future of Excel
   1. You can build anything! It’s not going away
7. You must have column headers
   1. Ctrl + T to insert a table
   2. Table does NOT have headers
   3. Rename the headers: Channel Region Fresh Grocery Frozen
   4. You can dynamically refer to the headers such as using the lower function.
8. You must have a table name
   1. Go to the name manager and rename to sales
   2. And now these references will point to sales not Table1
9. They look good
   1. Table Design > Table Styles
   2. Also Table Style options, we will work on Totals later
   3. Everything is formatted for you – and it stays that way!
10. You can add and delete data easily
    1. Go ahead and add and delete some rows and columns, look how everything is expanded
       1. Do a RANDBETWEEN() to see how easy that was for a new column
       2. Manually insert a row and see how that is updated instantly
11. No rewriting formulas
    1. Take the sum of one of the columns and see how it doesn’t move! Even when we add new rows
12. We can point to data by name, not location
    1. Take a column that is 10% of one of the columns to calculate tax or something like that.
13. We can easily work with totals
    1. Play around with the totals and see how easy it is
    2. Also show how this is NOT going to mess up other formulas
    3. But what if I wanted to do total overall sales?
14. Portal into Power Query
    1. Let’s unpivot the data and see how easy it is