Exercise Steps

1. **Make a copy of the raw data**
2. **Explore the data**
    a. Problem: Artificial (low totals, few shows).
    b. Problem: Structure of data
    c. Problem: Shows are different lengths.
3. **Normalize Subscriber ID into an 8-character string**
    a. Insert new Column titled SID
    b. Show students how to enter a formula into a cell
    c. Enter (*or have Students copy from Zoom chat*) this formula into the cell B2 ="SID_"&RIGHT("000"&A2,4)
    d. Identify and Double-click the Fill Down handle to copy the formula all the way down the column
4. **Add new 'total minutes' column**
    a. Describe how to multiply cells as a formula rather than as fixed numbers
    b. Show students how to copy formulas down (show this more than once)
    c. Select the column and adjust decimal places to 1 for all values
5. **Discuss and create a pivot table**
    a. Explain the pivot table as a tool
    b. Select all the data (explain keyboard shortcut or other ways to select all data)
    c. Shows the 'Pivot Table...' option under 'Data' menu and select it
    d. Explain again that we want rows of users and create the structure
        i. Show how to select a new row field
        ii. Select 'Subscriber ID'
        iii. Disable grand total for row field
        iv. Show how to select a new column field
        v. Select 'Show'
        vi. Disable grand total for column field
        vii. Select 'Total Minutes' as the values field
6. **Copy and paste the 'values' of the pivot table to a new tab**
7. **Optional: Create another Pivot Table to calculate and explain descriptive statistics for the data set (average viewing, most watched, etc.)**
8. **Copy Total Minutes Watched Columns, Paste Values Only into A1 in the Analysis tab, then describe the axes and values in the correlation matrix**
9. **Calculate the first value in the correlation matrix =CORREL(B:B, C:C)**
10. **Show students how to copy formulas down the diagonal of the Pivot Table**
11. **Give students time as they follow along to complete their matrix**
12. **Demonstrate Correlation of the best show pairing in a Scatter Plot, suggest doing so 3x for a positive, negative and no-correlation examples**