

Microsoft Excel

More Conditional Formatting



Excel: More Conditional Formatting

1.0 hour

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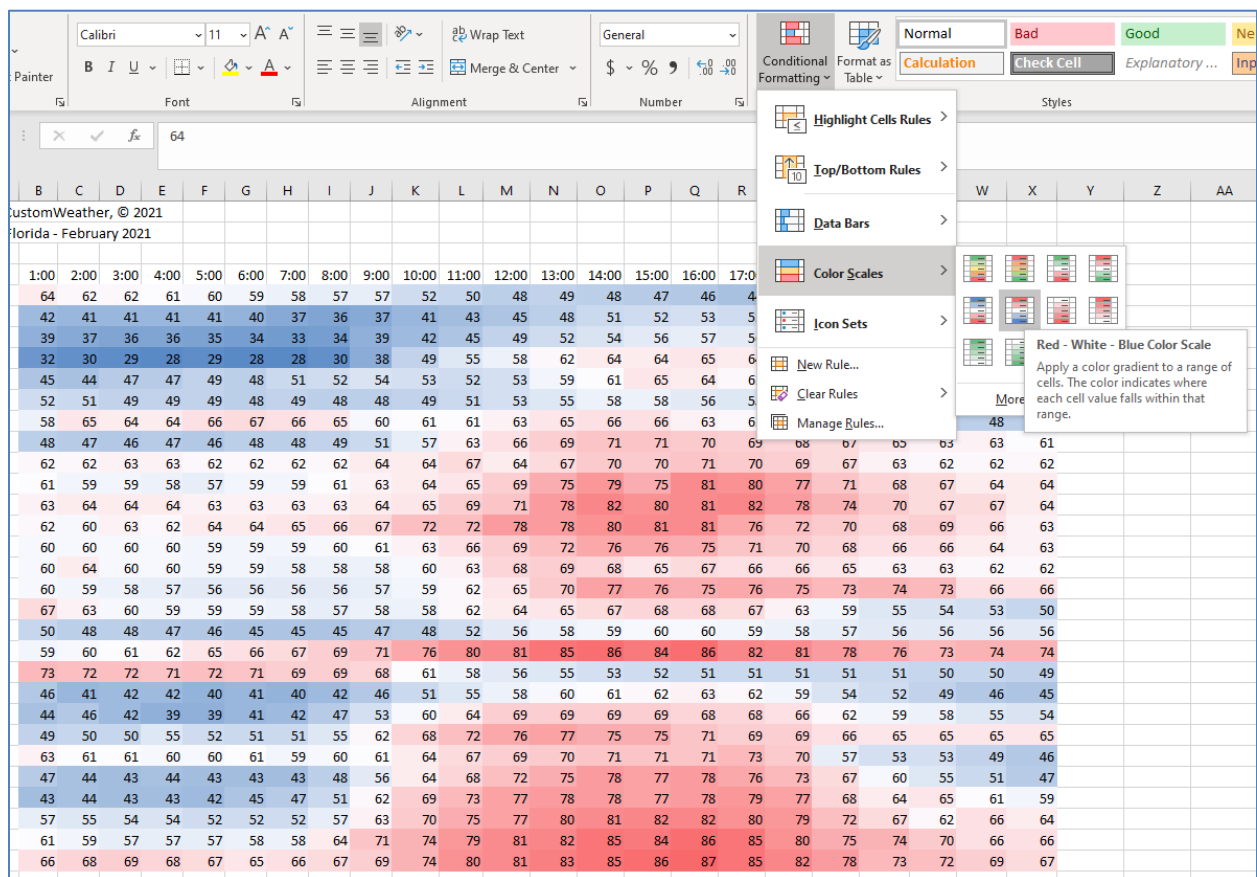
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Class Evaluation: <https://go.ufl.edu/trainingeval>

Exercise 1: Heat Map – Trends with Color Scales

"A heat map (or heatmap) is a data visualization technique that shows magnitude of a phenomenon as color in two dimensions. The variation in color may be by hue or intensity, giving obvious visual cues to the reader about how the phenomenon is clustered or varies over space." [Wikipedia](#)

1. Sheet "HeatMap-Temp"
2. Select all the temperatures (B5:X32)
3. On the **Home** tab –
 - a. **Conditional Formatting**
 - b. **Color Scales**
 - c. **Red – White – Blue Color Scale**



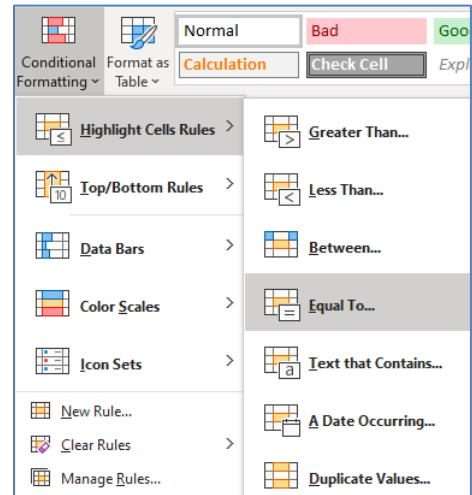
This heat map is showing temperatures, but it can be used to find any trend.

Consider, by day and by hour how a heatmap could show the busiest times

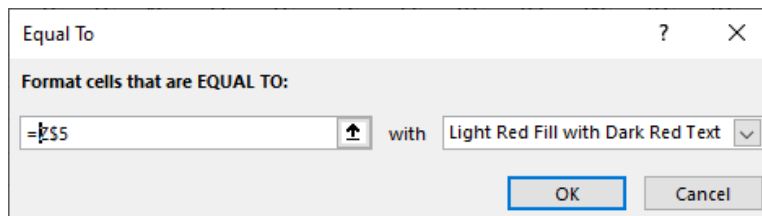
- The number of patients coming into an ER
- The number of students arriving for advising
- The number of passengers taking the shuttle

Exercise 2: High Low-Temp – Absolute vs Relative (\$)

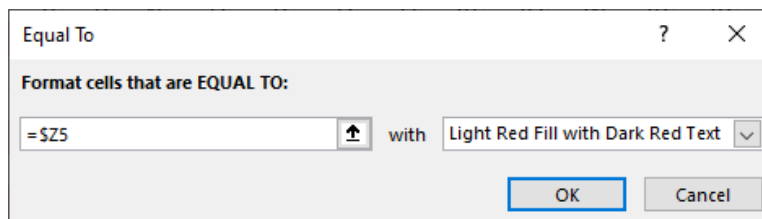
1. Sheet "HighLow-Temp "
2. Select all the temperatures (B5:X32)
3. On the **Home** tab –
 - a. **Conditional Formatting**
 - b. **Highlight Cell Rules**
 - c. **Equal to...**
4. Click in cell **Z5**
 - a. Notice the **Absolute (\$)** locks
 - b. This highlights all the temperatures equal to cell Z5



5. Remove the **Absolute (\$)** from in front of the **Z**
 - a. This locks the rows, but allows the columns to change
 - b. Column B matches cell Z5, Column C matches AA5
 - c. The condition is moving across the columns, not down the rows




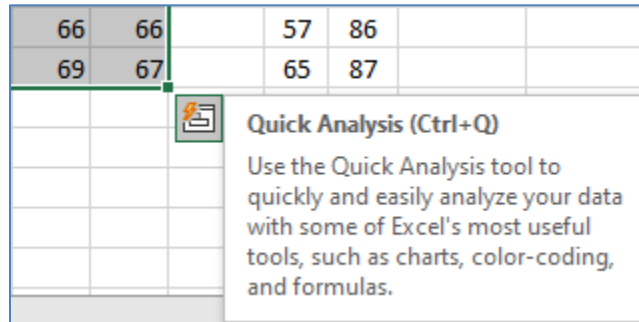
6. Put the **Absolute (\$)** Back in front of the **Z**, and remove the one in front of the **5**
 - a. This locks the columns, but allows the rows to change
 - b. Row 5 matches Z5, and Row 6 matches Z6
 - c. The condition is moving down the rows, not across the columns



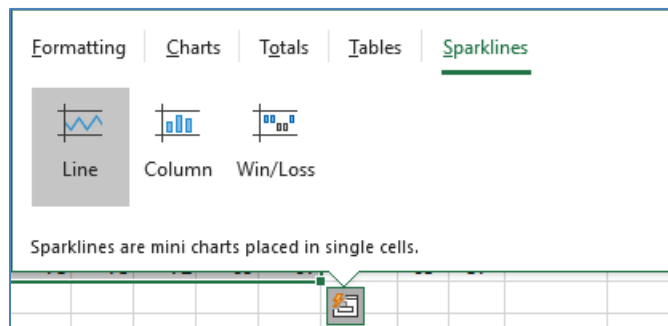
7. Repeat the exercise for the **High Temp** (using \$AA5)

Trend – Sparklines

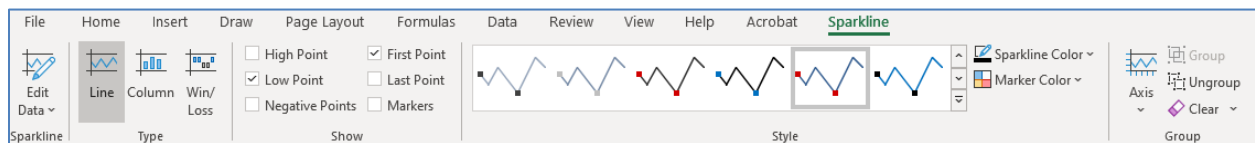
1. Sheet "HighLow-Temp"
2. In Cell Y5 type the title: **Trend**
3. Select all the temperatures (B5:X32)
4. Look for the **Quick Analysis** button in the bottom right of your selection 
 - a. If you don't see it, hover your mouse near the fill handle, or press *Ctrl-Q*







5. Choose **Sparklines**, click on **Lines**



6. Use the Sparkline tab to customize the Sparklines

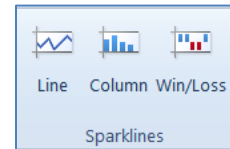


- a. Turn on the **High Point** and **Low Point**
- b. Change the **Weight** of the line under the **Sparkline Color** menu
- c. Change the color of the **High Point** and **Low Point** under the **Marker Color** menu

| 22:00 | 23:00 | Trend | Low | High |
|-------|-------|---|-----|------|
| 42 | 42 |  | 42 | 64 |
| 43 | 41 |  | 36 | 53 |
| 34 | 32 |  | 32 | 57 |
| 43 | 43 |  | 28 | 65 |

More about Sparklines

Sparklines are little charts embedded in your cells to show the trend of your data. You'll find the tools on the Insert tab, in their own group next to Charts.

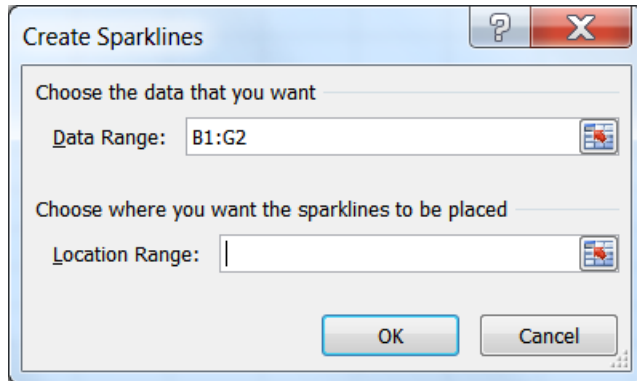


Line

| | A | B | C | D | E | F | G | H |
|---|-------|-----|-----|-----|-----|-----|-----|---|
| 1 | Items | JAN | FEB | MAR | APR | MAY | JUN | |
| 2 | Pants | 113 | 226 | 190 | 144 | 203 | 238 | |
| 3 | Shoes | 252 | 361 | 241 | 263 | 340 | 286 | |
| 4 | Socks | 424 | 208 | 279 | 271 | 168 | 281 | |

Column

| | A | B | C | D | E | F | G | H |
|---|-------|-----|-----|-----|-----|-----|-----|---|
| 1 | Items | JAN | FEB | MAR | APR | MAY | JUN | |
| 2 | Pants | 113 | 226 | 190 | 144 | 203 | 238 | |
| 3 | Shoes | 252 | 361 | 241 | 263 | 340 | 286 | |
| 4 | Socks | 424 | 208 | 279 | 271 | 168 | 281 | |



Create Sparklines

You can select the data range at any time, but if you do so before you choose the Sparkline option, your selection will autofill into the **Data Range**.

You can create the Sparkline for one cell and then fill down the pattern and Excel will create the Sparkline for each row's data. If you want to do all the rows at once, be sure to place the same number of cells in the Location Range.

Modify Sparklines

Click inside an existing Sparkline to see the Design tab.



Use the **Edit Data** drop down to change the range of your Sparkline data and location. You can do the full group or the individual series.

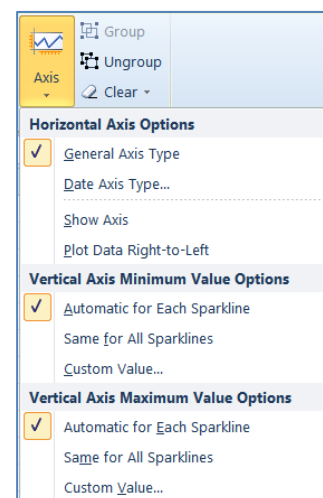
The **Show** options put markers or color variations within the charts to help points stand out.

The **Style** options are used to make the charts look better.

- Use the **Sparkline Color** option to change the color and weight (thickness) of the lines.
- The **Marker Color** option allows you to customize each of the markers.

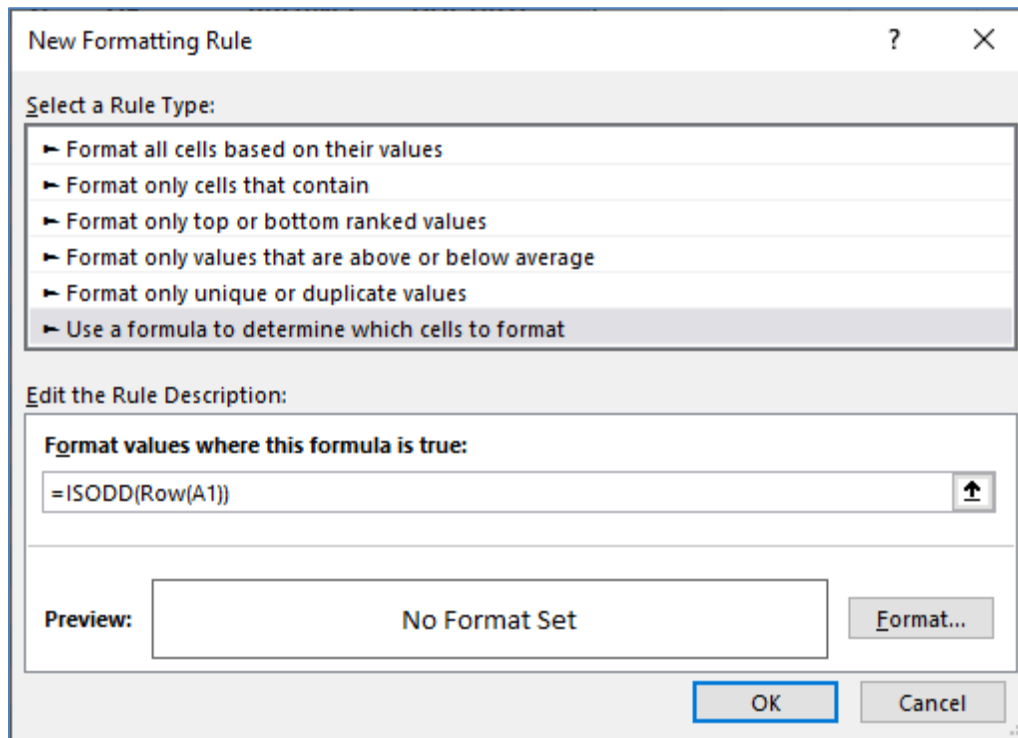
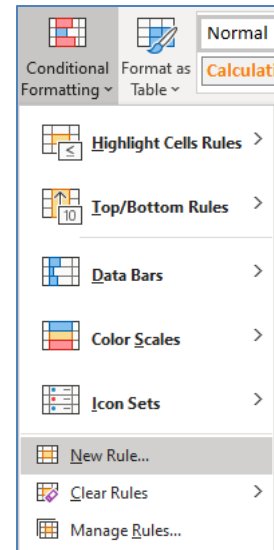
By default, each Sparkline has its own axis range. Among many other things, the **Axis** option allows you to set **Same for All Sparklines** so the charts are easier to compare across multiple ranges. Notice there is a minimum and maximum.

As you change the format, all of the Sparklines change. If you want to modify them independently you can **Ungroup** the Sparklines. This allows you to format each one, but if you decide to **Group** later, all the Sparklines will have the same format.

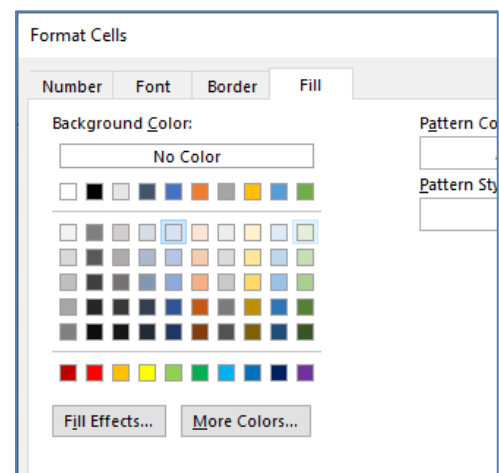


Exercise 3: Alternating Rows

1. Sheet "Alt-Rows"
2. Select all the data (A1:H32)
 - a. Ctrl-A
 - b. Or – Shift-Ctrl- →, Shift-Ctrl-↓
4. Set the **Condition**
 - a. On the **Home** tab – **Conditional Formatting**
 - b. **New Rule**
 - c. **Use a formula to determine which cells to format**
 - d. Enter the formula =ISODD(ROW(A1))

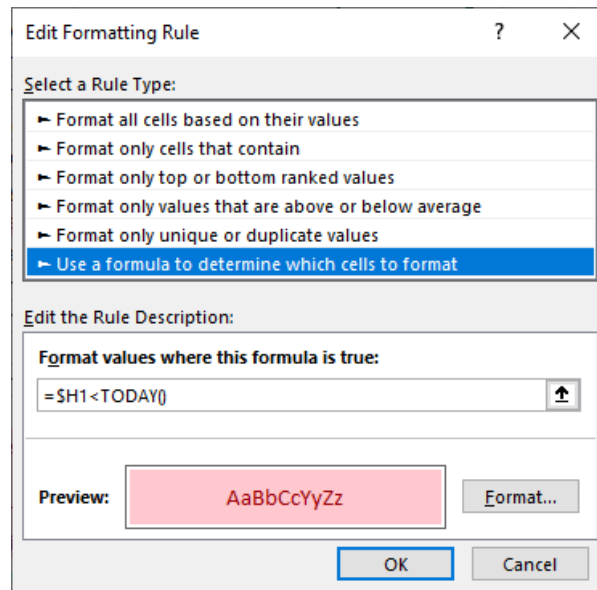


5. Set the **Format**
 - a. Click the **Format...** button
 - b. Choose a **Fill** color
 - c. Click **OK**
6. Repeat the exercise for **Even**
 - a. =ISEVEN(ROW(A1))



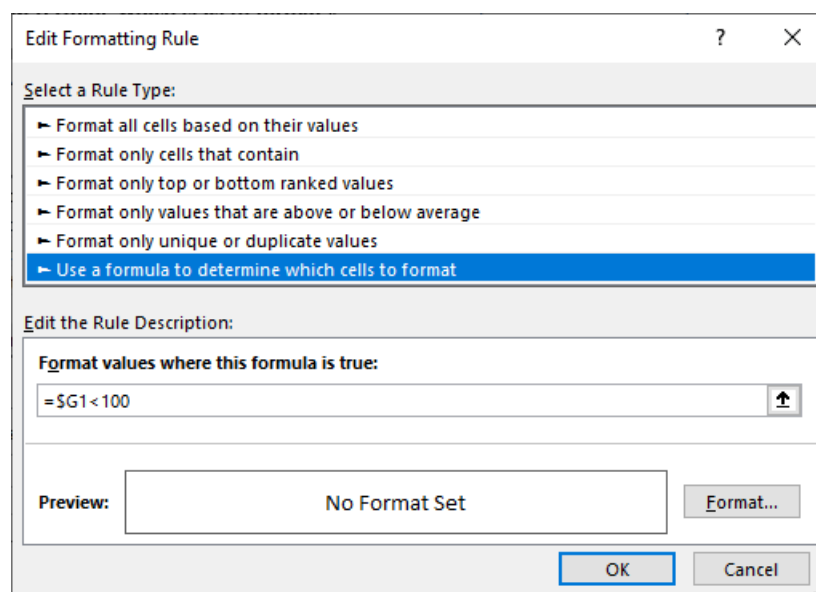
Exercise 4: Overdue but Over \$100

1. Sheet "Overdue"
2. Select Columns the columns A:H
3. Create the **Rule** (Condition) and **Format...**
 - a. On the **Home** tab – **Conditional Formatting** – **New Rule**
 - b. **Use a formula to determine which cells to format**
 - c. Enter the formula =**\$H1<Today()**



Adding an Exception

1. Create another Rule without a **Format...**
2. Use the formula =**\$G1<100**



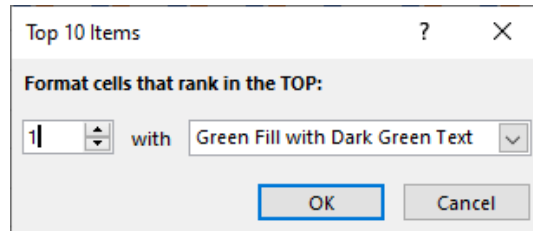
Exercise 5: Dashboard

A dashboard is a sheet used to summarize data.

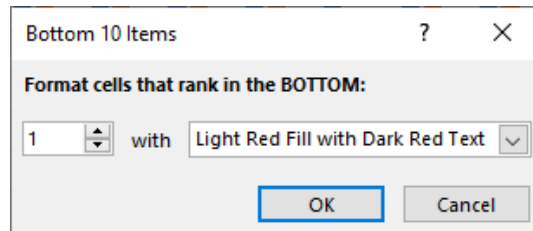
Quarters

High/Low

1. Select the FY 18-19 numbers (B2:B13)
2. Conditional Format - Choose Top/Bottom Rules
 - a. Choose Top 10
 - b. Change to 1, with a Green Fill



3. Conditional Format - Choose Top/Bottom Rules
 - a. Choose Bottom 10
 - b. Change to 1, with a Red Fill



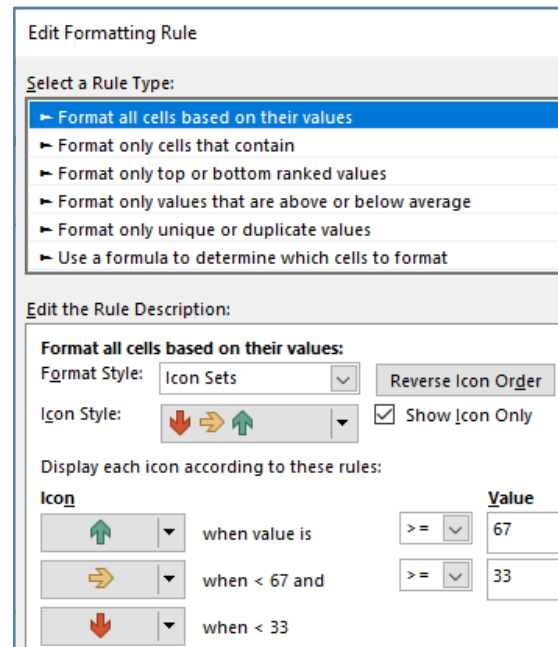
4. Click the Format Painter, from the Clipboard
5. Click on cell C2 to paste the same formatting rules on FY 19-20

| Quarters | FY 18-19 | FY 19-20 | Net/Loss |
|----------|----------|----------|----------|
| Jan | 6016 | 6330 | 314 |
| Feb | 5163 | 5874 | 711 |
| Mar | 7246 | 6561 | -685 |
| Apr | 6709 | 6705 | -4 |
| May | 6385 | 6551 | 166 |
| Jun | 6366 | 5851 | -515 |
| Jul | 7202 | 6712 | -490 |
| Aug | 6319 | 6089 | -230 |
| Sep | 6677 | 5559 | -1,118 |
| Oct | 6325 | 6459 | 134 |
| Nov | 6269 | 5876 | -393 |
| Dec | 6185 | 6917 | 732 |

| Quarters | FY 18-19 | FY 19-20 | Net/Loss |
|----------|----------|----------|----------|
| Jan | 6016 | 6330 | ↑ |
| Feb | 5163 | 5874 | ↑ |
| Mar | 7246 | 6561 | ↓ |
| Apr | 6709 | 6705 | → |
| May | 6385 | 6551 | ↑ |
| Jun | 6366 | 5851 | ↓ |
| Jul | 7202 | 6712 | → |
| Aug | 6319 | 6089 | → |
| Sep | 6677 | 5559 | ↓ |
| Oct | 6325 | 6459 | ↑ |
| Nov | 6269 | 5876 | → |
| Dec | 6185 | 6917 | ↑ |

Net/Loss Icons

1. Select the Net/Loss numbers (D2:D13)
2. Conditional Format – Choose Icons
 - a. Use a Directional Arrows
 - b. Manage the Rules
 - c. Edit the Icon rule
 - d. Check the **Show Icon Only** option



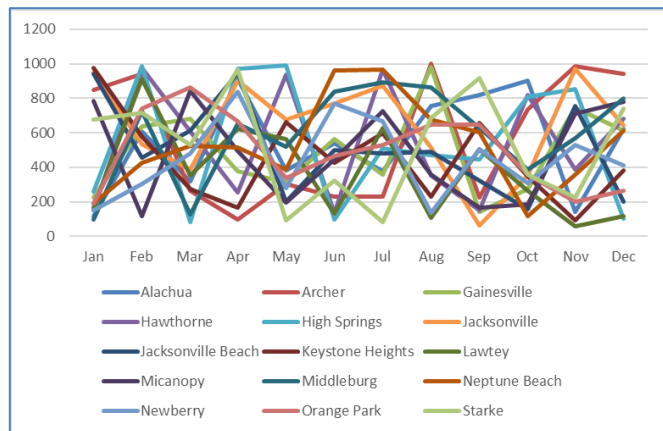
Months

Top/Bottom Rules

1. Select the Data (B17:M31)
2. Conditional Format - Choose Top/Bottom Rules
 - a. Choose Top 10
 - b. Change to 3, with a Green Fill
3. Conditional Format - Choose Top/Bottom Rules
 - a. Choose Bottom 10
 - b. Change to 3, with a Red Fill

Line Chart to Sparklines

1. Delete the horrible line chart.
2. Select the Data (B17:M31)
3. In the QuickAccess menu
 - a. Choose Sparklines
 - b. Use the Line option
 - c. Format the line.



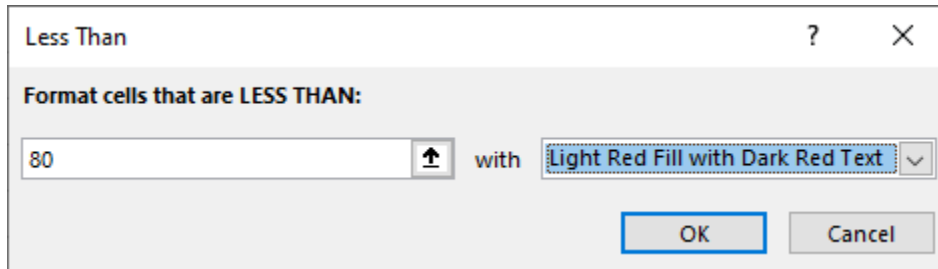
| Months | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Trend |
|--------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-------|
| Alachua | 116 | 608 | 319 | 914 | 380 | 538 | 377 | 754 | 820 | 904 | 141 | 624 | |
| Archer | 850 | 944 | 263 | 99 | 301 | 230 | 229 | 1001 | 224 | 737 | 988 | 940 | |
| Gainesville | 224 | 636 | 679 | 375 | 311 | 563 | 357 | 983 | 141 | 275 | 745 | 612 | |
| Hawthorne | 151 | 974 | 610 | 252 | 938 | 134 | 964 | 350 | 150 | 819 | 389 | 681 | |
| High Springs | 261 | 985 | 83 | 969 | 991 | 97 | 511 | 471 | 444 | 808 | 855 | 100 | |
| Jacksonville | 951 | 536 | 388 | 902 | 677 | 768 | 874 | 513 | 64 | 352 | 969 | 643 | |
| Jacksonville Beach | 941 | 457 | 611 | 948 | 202 | 499 | 480 | 491 | 322 | 158 | 757 | 202 | |
| Keystone Heights | 978 | 580 | 274 | 168 | 660 | 428 | 596 | 231 | 655 | 347 | 92 | 380 | |
| Lawtey | 164 | 913 | 351 | 623 | 562 | 133 | 626 | 107 | 506 | 264 | 59 | 119 | |
| Micanopy | 786 | 117 | 844 | 495 | 196 | 448 | 728 | 359 | 165 | 187 | 712 | 778 | |
| Middleburg | 95 | 728 | 124 | 650 | 520 | 839 | 891 | 861 | 625 | 387 | 570 | 798 | |
| Neptune Beach | 188 | 427 | 526 | 516 | 385 | 963 | 967 | 677 | 604 | 117 | 357 | 612 | |
| Newberry | 152 | 301 | 481 | 839 | 281 | 769 | 665 | 134 | 503 | 306 | 528 | 410 | |
| Orange Park | 189 | 742 | 861 | 666 | 339 | 463 | 528 | 646 | 647 | 356 | 198 | 265 | |
| Starke | 677 | 716 | 529 | 967 | 94 | 325 | 81 | 688 | 917 | 355 | 223 | 739 | |

Exercise 6 - Sugar Chart

Conditional Formats can be used to help fill in Excel forms.

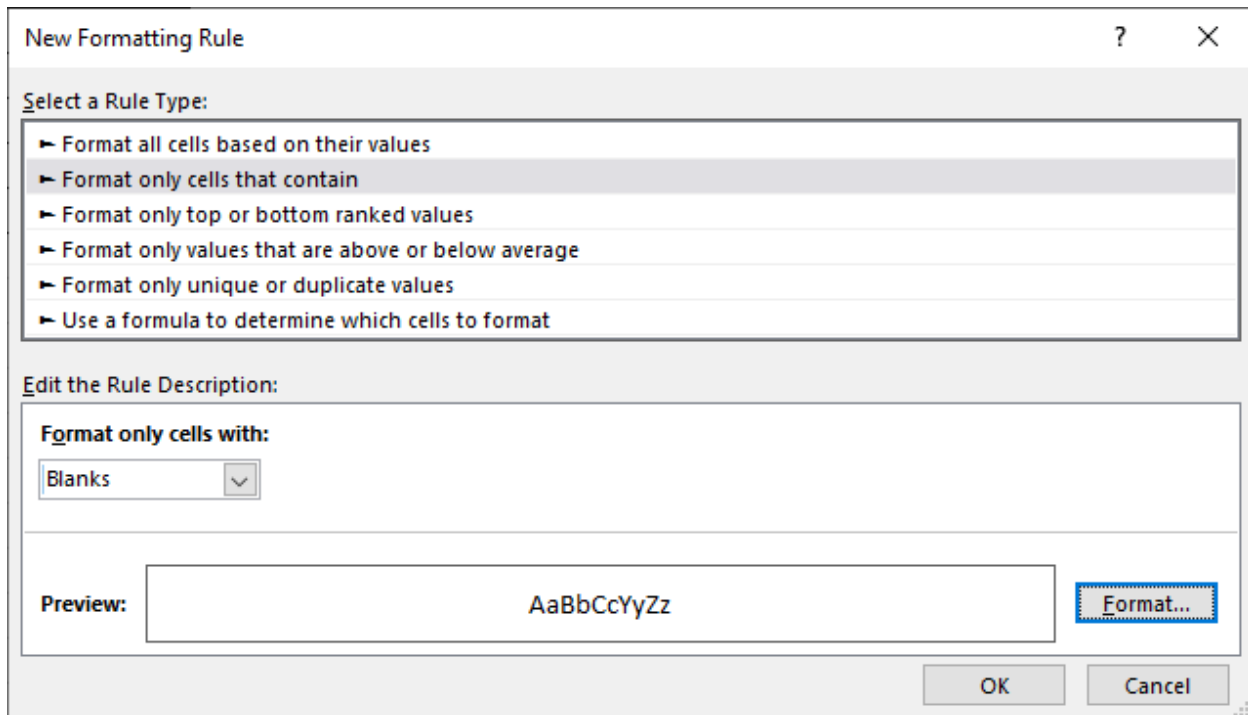
Low Sugars

1. Select the Sugar values (C6:C13)
2. Conditional Formatting
 - a. Highlight Cell Rules - Less than
 - b. 80, Light Red Fill



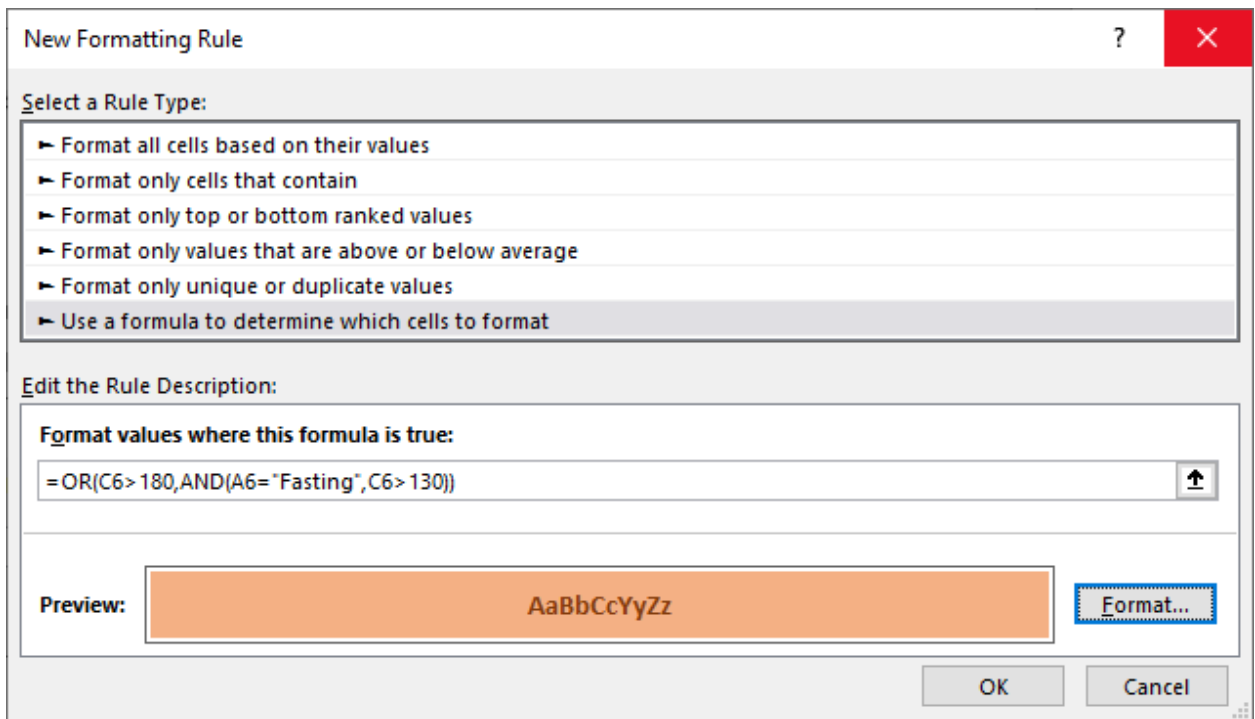
Blanks

1. Conditional Formatting
 - a. New Rule – **Format only cells that contain**
 - b. Format only cells with: **Blanks**
 - c. Click on the Format...
 - d. Choose a White **Fill**



High Sugars

1. Create the **Rule** (Condition) and **Format...**
 - a. On the **Home** tab – **Conditional Formatting – New Rule**
 - b. **Use a formula to determine which cells to format**
2. Use the Formula: =OR(C6>180, AND(A6="Fasting", C6>130))
 - a. OR – Any of the choices are TRUE
 - b. C6>180, all sugars over 180 are HIGH
 - c. AND – All values are True
 - d. A6="Fasting" AND C6>130, Fasting sugars over 130 are HIGH
 - e. Test logic translates as...
 - i. Any sugar is over 180, OR Fasting Sugar is over 130
3. Set a Format that will stand out



Missing Entry

If a sugar value is entered, but there's no Detail, we want to be alerted.

1. Select the Detail cells (A6:A13)
2. Create a new Conditional Format rule
 - a. find when the Sugar is not blank, but the Detail is blank
 - b. =AND(ISBLANK(A6), NOT(ISBLANK(C6)))
 - c. Set a format

| Detail | Time | Sugar |
|-----------|----------|-------|
| Fasting | 8:00 AM | 109 |
| After 2hr | 10:00 AM | 297 |
| Fasting | 12:00 PM | 207 |
| After 2hr | 2:00 PM | 183 |
| | 4:00 PM | 99 |
| Fasting | 6:00 PM | 66 |
| After 2hr | 8:00 PM | 137 |