

## Twitter Thread by Clint Murphy



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### 10 Excel Formulas To 10x Your Productivity:

You have a table of cookie sales and have to answer:

- Who sold least / most cookies by month
- Who are the top 25% / bottom 25%
- Who has the most winning months
- Who has the most losing months
- Who sold the most cookies
- How is each girl trending

Let's dive in.

First	Last	January	February	March	April	May	June	July	August	September	October	November	December
Anna	Bella	2	43	31	22	31	34	40	47	41	18	30	19
Bella	Connie	19	34	15	38	34	21	32	30	25	34	26	1
Connie	Donna	49	35	5	1	47	35	6	25	22	17	50	43
Donna	Elanor	27	45	1	25	43	34	41	31	18	48	7	19
Elanor	Freida	24	20	42	21	15	49	12	22	25	24	3	8
Freida	Gladys	16	32	10	24	13	23	19	34	16	-	1	5
Gladys	Hanni	43	23	2	20	4	20	43	12	24	16	19	37
Hanni	Ina	25	-	4	14	22	9	4	46	16	28	8	44
Ina	Joon	46	12	12	34	46	41	35	47	5	35	11	18
Joon	Anna	9	28	28	5	28	23	49	36	17	2	1	27

- Format & shortcuts

Before you start, format your worksheet and lay out what you want to build.

Shortcuts used:

- Ctrl + space bar = Insert Column
- Shift + space bar = Insert Row
- Ctrl + shift + + = Insert
- Ctrl + R = Fill Right
- =Sum(G8:G17)

	January	February	March	April	May	June	July	August	September	October	November	December		
1														
2														
3														
4														
5														
6														
7	First	Last												
8	Anna	Bella	2	43	35	22	31	34	40	47	41	38	30	19
9	Bella	Conner	19	34	15	38	34	21	32	30	25	34	26	1
10	Conner	Dennis	40	35	5	1	47	35	6	25	22	17	50	43
11	Dennis	Elmer	27	45	1	25	43	34	41	31	18	48	7	19
12	Elmer	Freda	24	30	42	21	15	49	32	27	25	24	3	8
13	Freda	Gladys	16	32	30	24	13	23	19	34	16	-	1	5
14	Gladys	Hanni	43	23	2	20	4	20	43	12	24	56	19	37
15	Hanni	Ira	25	-	4	14	22	9	4	46	16	28	8	44
16	Ira	Joan	46	32	32	34	46	41	35	47	5	35	11	38
17	Joan	Anna	9	28	28	5	28	23	49	36	17	2	1	27
18														
19														
20														
21														
22														

- Min and Max

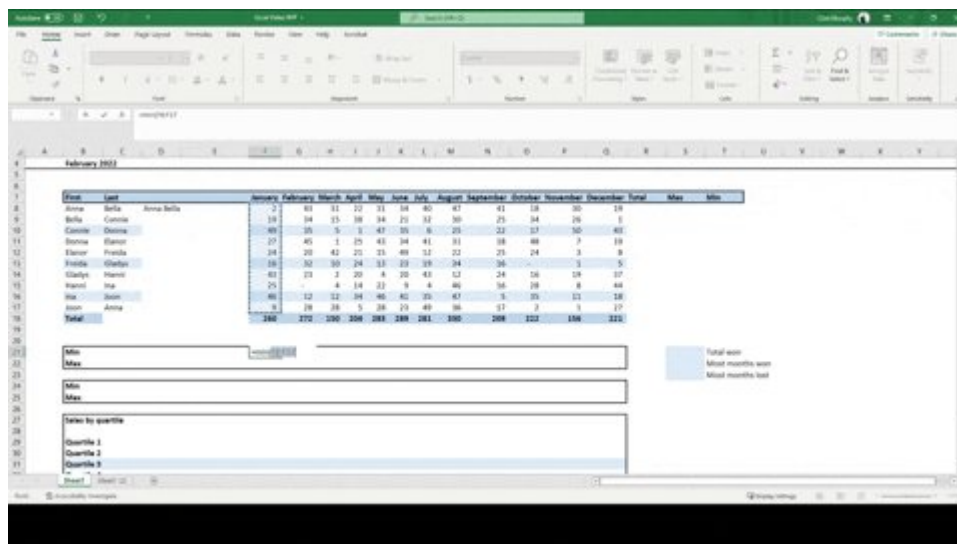
Min and Max are helpful when working with large data sets.

Min returns the lowest value in a series of data.

Max returns the highest value in a series of data.

Min Formula: =Min(number1, number2...)

Max Formula: =Max(number1, number2...)



## • Concatenate

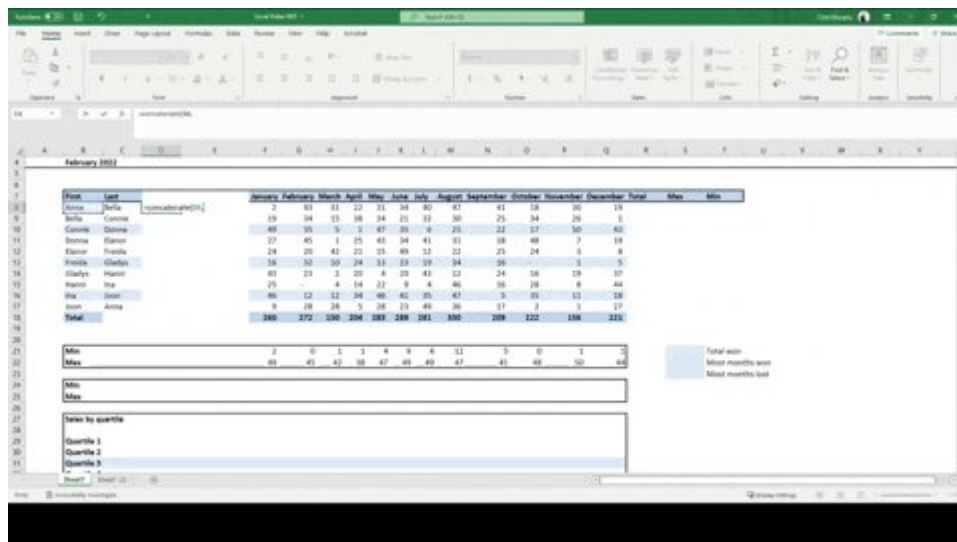
Concatenate will bring strings of data together.

When you want to combine a first and last name into a single cell, it's your tool.

The formula is:

=concatenate(text1, text2, text3)

Remember to add a " " between the first and second name as text2



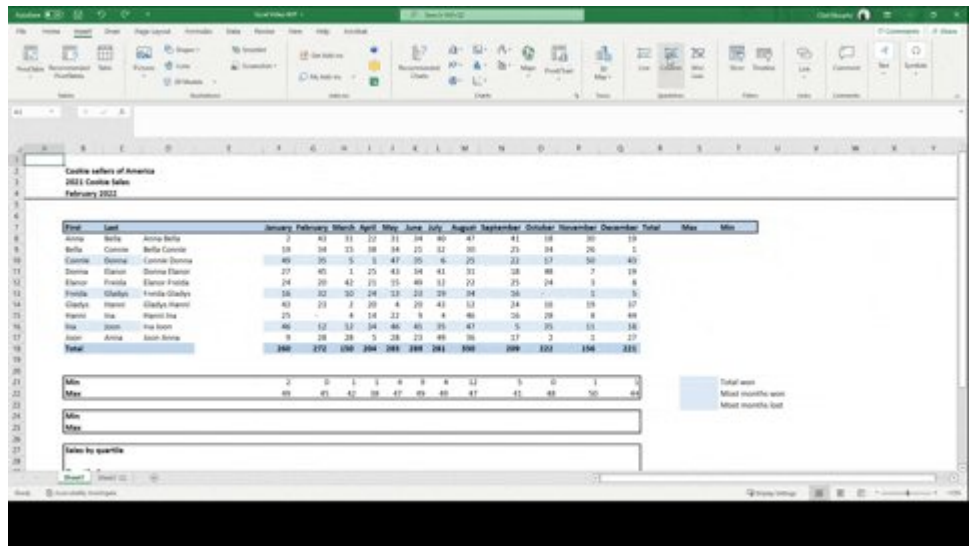
## • Sparklines

Sparklines let's us answer the question: How is each girl trending.

With Sparklines, we can insert graphical data directly into a cell of our table as simply as:

- Select Range
- Insert Sparkline

- I choose Column



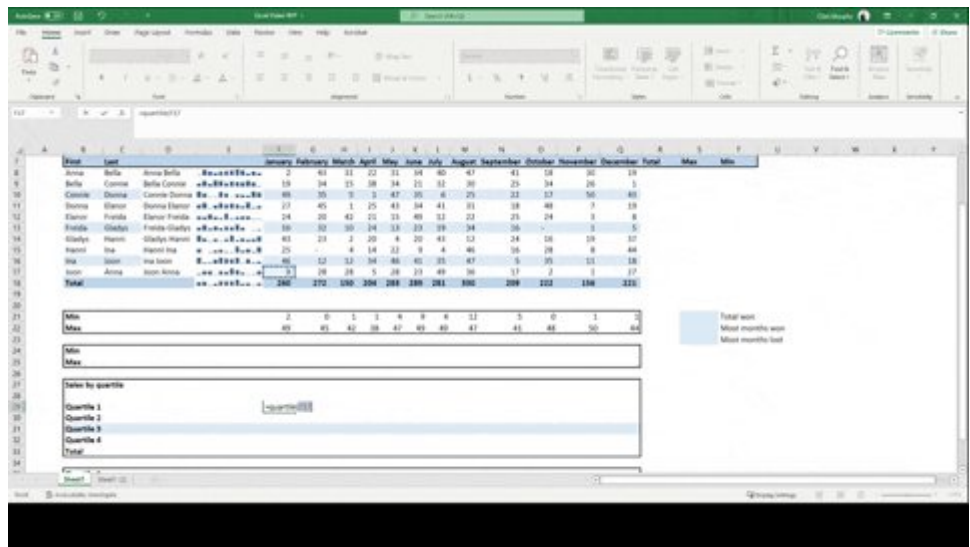
- Quartile

In statistics, a quartile divides the number of data points into four parts, or quarters, of more-or-less equal size.

It lets us know the bottom 25% of sales people and the top 25% of sales people are.

Formula: =quartile(array,quart)

quart = the quartile we want.



- Sumifs

We use sumifs when we want to add cells that meet multiple criteria, generally in a list.

In our scenario, we want to sum numbers between two quartiles.

Formula = sumifs(range, criteria1 range, criteria1, criteria2 range, criteria2)

First	Last	January	February	March	April	May	June	July	August	September	October	November	December	Total	Max	Min
Anna	Bella	Anna Bella	3	43	21	22	21	28	40	47	41	28	20	19		
Bella	Conna	Bella Conna	15	34	15	18	14	21	17	30	25	18	26	5		
Conna	Donna	Conna Donna	49	35	5	1	47	35	4	25	22	17	50	43		
Donna	Flanna	Donna Flanna	27	40	1	25	43	34	41	31	38	48	7	19		
Flanna	Franka	Flanna Franka	24	20	42	21	15	40	12	22	23	24	3	8		
Franka	Gladya	Franka Gladya	16	32	50	24	13	29	39	34	36			1	5	
Gladya	Hanna	Gladya Hanna	43	23	2	20	4	20	42	12	34	16	19	17		
Hanna	Iraa	Hanna Iraa	27		4	14	22	9	46	16	28	9	48			
Iraa	Joan	Iraa Joan	40	12	12	34	46	40	35	47	5	35	12	18		
Joan	Anna	Joan Anna	9	28	28	1	28	23	49	36	17	2	5	27		
Total			240	272	190	304	289	289	281	390	208	212	154	221		

- X-Lookup

X-Lookup is an upgraded V-Lookup.

We use it to find data in a table or range.

We are going to combine our X-Lookup with our Min and Max function.

The formula: =XLOOKUP(lookup value, lookup array, return array)

Ours will pull the min / max person by month.

First	Last	January	February	March	April	May	June	July	August	September	October	November	December	Total	Max	Min
Anna	Bella	Anna Bella	3	43	21	22	21	28	40	47	41	28	20	19		
Bella	Conna	Bella Conna	15	34	15	18	14	21	17	30	25	18	26	5		
Conna	Donna	Conna Donna	49	35	5	1	47	35	4	25	22	17	50	43		
Donna	Flanna	Donna Flanna	27	40	1	25	43	34	41	31	38	48	7	19		
Flanna	Franka	Flanna Franka	24	20	42	21	15	40	12	22	23	24	3	8		
Franka	Gladya	Franka Gladya	16	32	50	24	13	29	39	34	36			1	5	
Gladya	Hanna	Gladya Hanna	43	23	2	20	4	20	42	12	34	16	19	17		
Hanna	Iraa	Hanna Iraa	27		4	14	22	9	46	16	28	9	48			
Iraa	Joan	Iraa Joan	40	12	12	34	46	40	35	47	5	35	12	18		
Joan	Anna	Joan Anna	9	28	28	1	28	23	49	36	17	2	5	27		
Total			240	272	190	304	289	289	281	390	208	212	154	221		

- Countif

Countif will count a value that meets certain criteria.

We will use this to determine how many times someone was the minimum value or maximum value in a month.

Formula: =countif(range, criteria)

**Sales by first and last name**

2021 Sales by first and last name

February 2021

First	Last	January	February	March	April	May	June	July	August	September	October	November	December	Total
Anna	Bella	2	43	11	22	31	34	40	47	41	18	30	19	358
Bella	Camille	19	34	15	38	34	21	17	30	23	34	26	1	308
Camille	Donna	49	35	5	1	47	35	6	25	21	17	50	43	335
Donna	Elanor	27	40	1	25	43	34	41	31	18	48	7	19	339
Elanor	Freida	24	29	42	25	15	49	12	37	25	24	3	8	265
Freida	Gladys	18	32	30	34	13	23	39	34	36	-	5	5	283
Gladys	Hanni	43	23	3	20	6	30	43	12	24	16	19	37	263
Hanni	Ira	25	-	4	14	23	9	4	46	36	28	8	44	230
Ira	Isa	46	12	12	34	46	41	35	47	5	35	11	18	342
Isa	Isa	9	29	28	5	28	23	49	36	17	3	1	27	253
Isa	Isa	9	29	28	5	28	23	49	36	17	3	1	27	253
Total		290	270	190	204	289	288	281	300	208	212	154	211	2,877

**Max**

Max	Max
49	43

**Min**

Min	Min
Anna	Hanni
Camille	Donna
Elanor	Bella
Freida	Isa
Gladys	Isa
Hanni	Isa
Ira	Isa
Isa	Isa
Isa	Isa

**Sales by quarter**

Quarter	Q1	Q2	Q3	Q4
Q1	27	32	7	20
Q2	41	51	15	41
Q3	52	66	17	46

## • Conditional formatting

Conditional formatting lets us highlight information for the readers.

We can either set our own rules or use preset rules, as we will in our example.

By using different colors it draws your eyes to the good, and bad.

**Sales by first and last name**

2021 Sales by first and last name

February 2021

First	Last	January	February	March	April	May	June	July	August	September	October	November	December	Total	Max	Min
Anna	Bella	2	43	11	22	31	34	40	47	41	18	30	19	358	2	2
Bella	Camille	19	34	15	38	34	21	17	30	23	34	26	1	308	1	1
Camille	Donna	49	35	5	1	47	35	6	25	21	17	50	43	335	3	1
Donna	Elanor	27	40	1	25	43	34	41	31	18	48	7	19	339	2	1
Elanor	Freida	24	29	42	25	15	49	12	37	25	24	3	8	265	2	1
Freida	Gladys	18	32	30	34	13	23	39	34	36	-	5	5	283	2	1
Gladys	Hanni	43	23	3	20	6	30	43	12	24	16	19	37	263	2	1
Hanni	Ira	25	-	4	14	23	9	4	46	36	28	8	44	230	1	1
Ira	Isa	46	12	12	34	46	41	35	47	5	35	11	18	342	2	1
Isa	Isa	9	29	28	5	28	23	49	36	17	3	1	27	253	1	1
Isa	Isa	9	29	28	5	28	23	49	36	17	3	1	27	253	1	1
Total		290	270	190	204	289	288	281	300	208	212	154	211	2,877		

**Max**

Max	Max
49	43

**Min**

Min	Min
Anna	Hanni
Camille	Donna
Elanor	Bella
Freida	Isa
Gladys	Isa
Hanni	Isa
Ira	Isa
Isa	Isa
Isa	Isa

**Sales by quarter**

Quarter	Q1	Q2	Q3	Q4
Q1	27	32	7	20
Q2	41	51	15	41
Q3	52	66	17	46

## • Finished product

You always want your finished product to look good and be consistent.

When someone reads your work and it looks good, they ask less questions.

When you are asked less questions, you are more productive.

Make your work look good.

First	Last	January	February	March	April	May	June	July	August	September	October	November	December	Total	Max	Min		
Anna	Bella	Anna Bella	..#.....	2	43	35	22	31	34	40	47	43	18	30	19	354	2	1
Bella	Connie	Bella Connie	..#.....	19	34	15	18	34	21	32	30	25	34	26	1	309	1	1
Connie	Donna	Connie Donna	..#.....	49	35	5	1	47	35	6	25	22	17	50	43	335	3	1
Donna	Elanor	Donna Elanor	..#.....	27	45	1	25	43	34	41	31	18	48	7	19	388	2	1
Elanor	Freida	Elanor Freida	..#.....	26	20	42	21	15	49	12	22	20	24	3	8	265	2	-
Freida	Gladys	Freida Gladys	..#.....	16	32	39	24	13	23	19	34	16	-	1	5	234	-	2
Gladys	Hanni	Gladys Hanni	..#.....	43	23	2	20	4	20	43	12	24	16	19	37	263	-	2
Hanni	Ina	Hanni Ina	..#.....	25	-	4	14	22	9	4	46	16	28	8	44	230	1	3
Ina	Joon	Ina Joon	..#.....	46	32	32	34	46	43	35	47	5	35	11	18	342	-	1
Joon	Anna	Joon Anna	..#.....	9	28	28	5	28	23	49	36	17	2	1	27	253	1	-
Total			.....	260	272	150	204	283	289	281	330	209	222	156	221	2,877		

Min	2	0	1	1	4	9	4	12	5	0	1	0
Max	49	45	42	38	47	49	49	47	43	48	50	48

Min	Anna	Hanni	Donna	Connie	Gladys	Hanni	Hanni	Gladys	Ina	Freida	Freida	Bella
Max	Connie	Donna	Elanor	Bella	Connie	Elanor	Joon	Anna	Anna	Donna	Connie	Hanni

Sales by quartile												
Quartile 1	27	32	7	29	32	50	22	39	37	18	5	34
Quartile 2	43	51	15	41	50	46	53	41	35	35	35	18
Quartile 3	52	66	27	46	65	64	75	70	46	52	30	60
Quartile 4	138	123	101	97	136	125	133	140	91	117	106	124
Total	260	272	150	204	283	289	281	330	209	222	156	221

Anna Bella Total won  
Connie Donna Most months won  
Hanni Ina Most months lost



TL;DR:

If you want to 10x your Excel productivity, learn these 10 formulas and techniques:

- Conditional formatting
- Format & shortcuts
- Min +Max formula
- Concatenate
- Sparklines
- X-Lookup
- Quartile
- Countif
- Sumifs

If you enjoyed this thread, please:

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<https://t.co/zYFc73vj2C>

Until next time,

Clint Murphy

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— Clint Murphy (@IAmClintMurphy) [June 23, 2022](#)