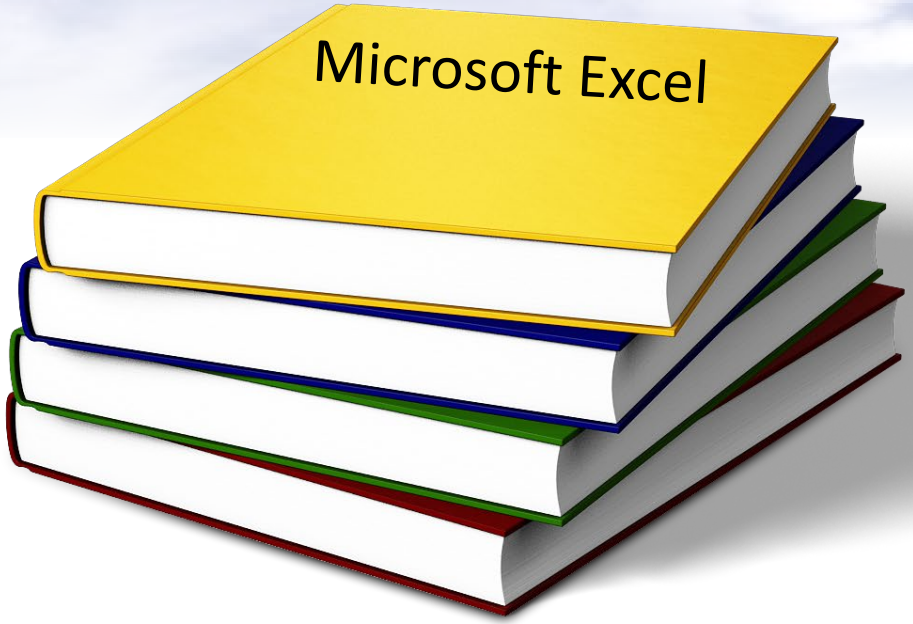
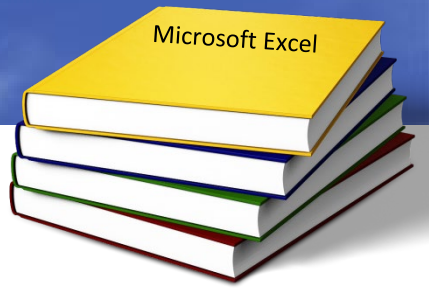
Get Ready to Excel with Excel

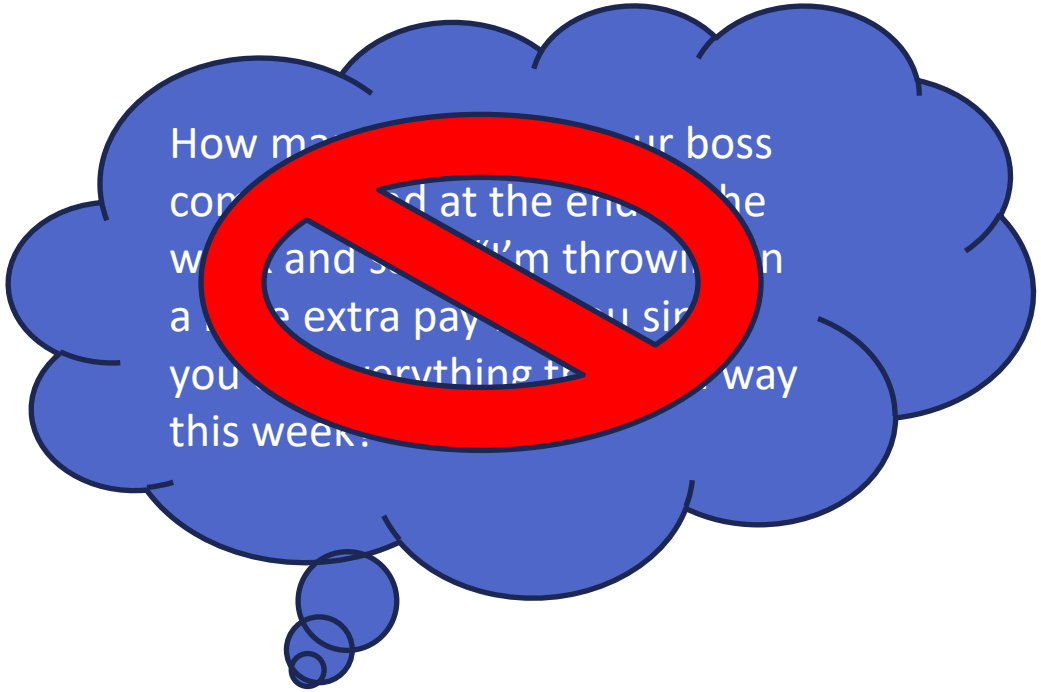


So why do I need this class?

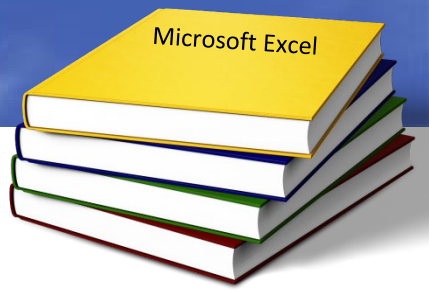


Good question!

To help you recognize the value of the tools you have in front of you and make your daily routines easier.

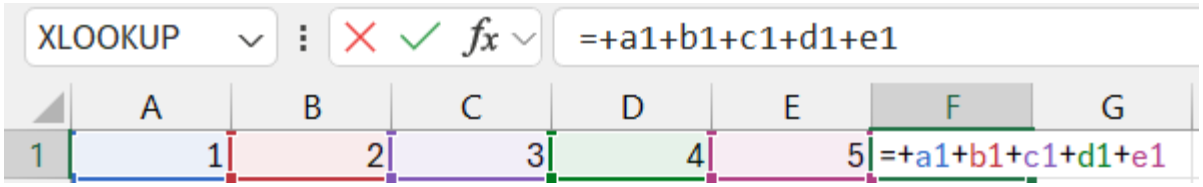


What is a formula?

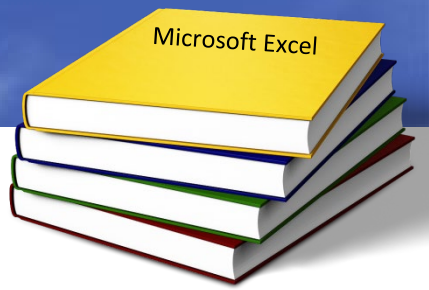


A formula in Excel is an equation that performs calculations on values in a worksheet. Formulas always start with an equal sign (=) and can include functions, references, operators, and constants.

Example:

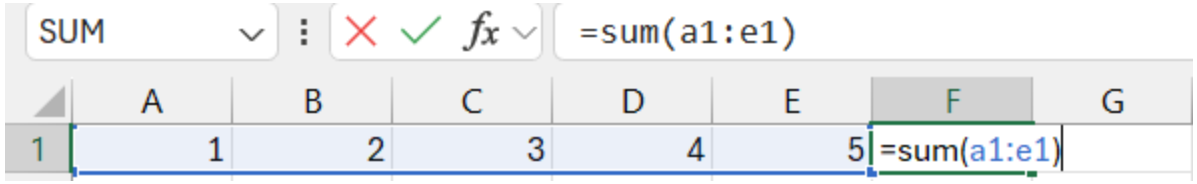


What is a function?

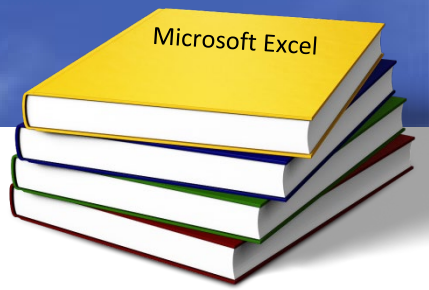


In Excel, a function is a predefined formula that performs calculations using specific values, or arguments, in a particular order. Functions can be used to perform simple or complex calculations, and can save time by automating tasks that would normally be done with formulas.

Example:

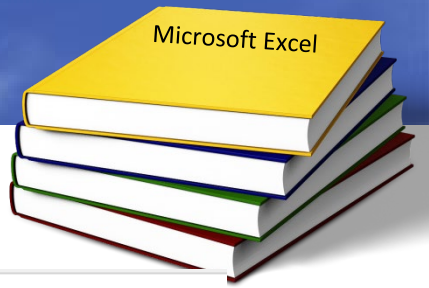


Topics Covered

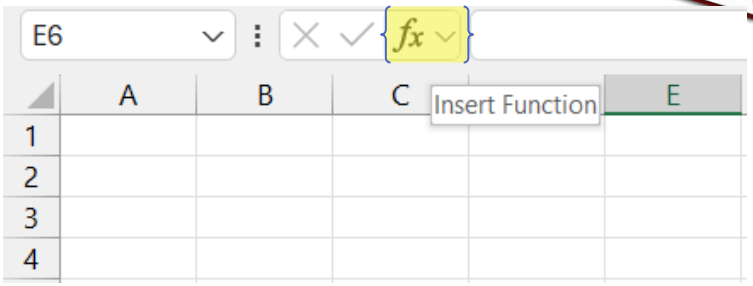


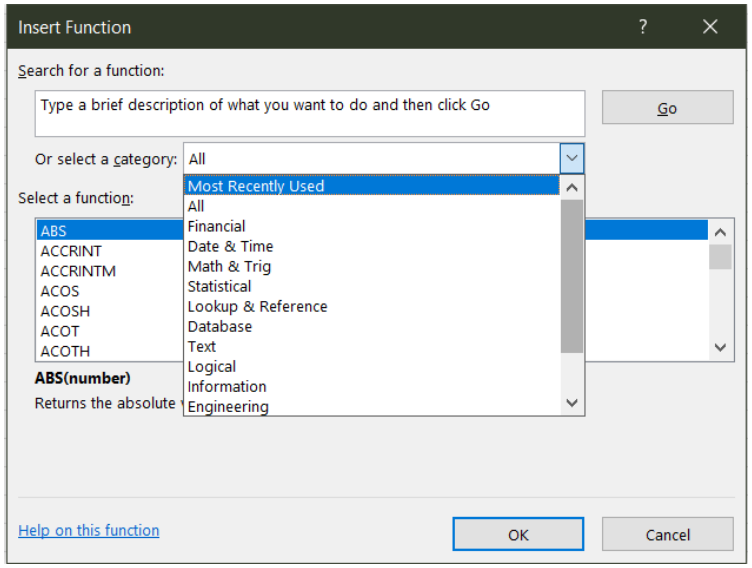
1. LEFT/RIGHT/MID
2. TEXTBEFORE, TEXTAFTER, TEXT to COLUMNS
3. CONCAT, TEXTJOIN
4. Paste Special
5. MATCH
6. XLOOKUP
7. Alt ; or to GO TO - visible only, blanks
8. Subtotals/Counts
9. Pivot Table
10. Proper/Upper/Lower

Insert Function



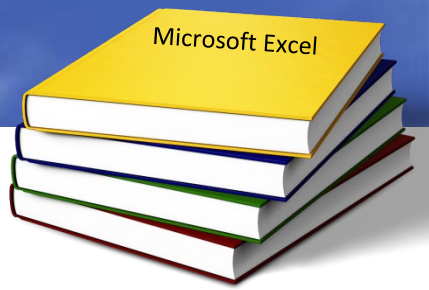
This is a shortcut to insert a function in the cell you are working in.





This is the dialogue box where you can find the function you want/need.

RIGHT Function



We will use this function to strip out the last 4 numbers in the SSN field.

	A	B	C	D	E	
1	**Employee Name**	**SSN**	**Last 4 SSN**	**DOB**	**Street Address**	**City/State**
2	Mohammed Lawson	655-36-8995	=RIGHT(B2,4)	3/1/1960	127 Piper St.	Allen, TX
3	Brian Norris	456-99-7480		9/12/1950	15 Jefferson Ave.	Alvin, TX
4	Zach Brooks	107-98-7097		12/9/1952	163 Pumpkin Hill St.	Amarillo,
5	Hashim Monroe					
6	Cohen Mcclure					
7	Oliver Solomon					
8	Junaid Sparks					
9	Humza Castillo					
10	Sian Alvarez					
11	Karl Kent					
12	Hope Gill					
13	Aimee Mccall					
14	Heath Fletcher					
15	James Lewis					
16	Raymond Graham					
17	Abubakar Andersen					
18	Kurtis Bailey					

Function Arguments

RIGHT

Text B2 = "655-36-8995"

Num_chars 4 = 4

= "8995"

Returns the specified number of characters from the end of a text string.

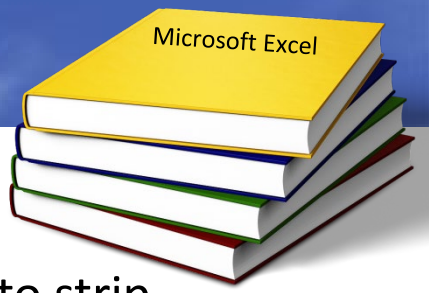
Num_chars specifies how many characters you want to extract, 1 if omitted.

Formula result = 8995

Help on this function

OK Cancel

MID Function



This function works similar to the Right function but it allows you to strip characters out of the middle of the text in a cell.

	A	B	C	D	E	F
1	**Employee Name**	**SSN**	**Last 4 SSN**	**Mid 2 SSN**	**DOB**	**Street Address**
2	Mohammed Lawson	655-36-8995	8995	=MID(B2,5,2)	3/1/1960	127 Piper St.
3	Brian Norris					
4	Zach Brooks					
5	Hashim Monroe					
6	Cohen Mcclure					
7	Oliver Solomon					
8	Junaid Sparks					
9	Humza Castillo					
10	Sian Alvarez					
11	Karl Kent					
12	Hope Gill					
13	Aimee Mccall					
14	Heath Fletcher					
15	James Lewis					
16	Raymond Graham					
17	Abubakar Anderser					

Function Arguments

MID

Text	B2	= "655-36-8995"
Start_num	5	= 5
Num_chars	2	= 2

= "36"

Returns the characters from the middle of a text string, given a starting position and length.

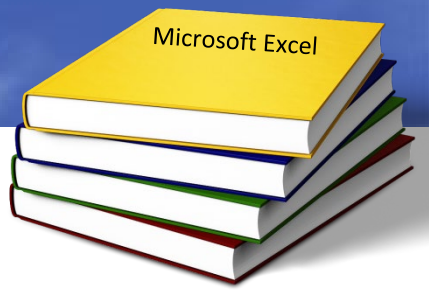
Text is the text string from which you want to extract the characters.

Formula result = 36

Help on this function

OK Cancel

LEFT Function



This function allows us to strip out the first 3 characters in the SSN field.

	A	B	C	D	E	F
1	**Employee Name**	**SSN**	**Last 4 SSN**	**Mid 2 SSN**	**First 3 SSN**	**DOB**
2	Mohammed Lawson	655-36-8995	8995	36	=LEFT(B2,3)	3/1/1960
3	Brian Norris					
4	Zach Brooks					
5	Hashim Monroe					
6	Cohen Mcclure					
7	Oliver Solomon					
8	Junaid Sparks					
9	Humza Castillo					
10	Sian Alvarez					
11	Karl Kent					
12	Hope Gill					
13	Aimee Mccall					
14	Heath Fletcher					
15	James Lewis					
16	Raymond Graham					

Function Arguments

LEFT

Text B2 = "655-36-8995"

Num_chars 3 = 3

= "655"

Returns the specified number of characters from the start of a text string.

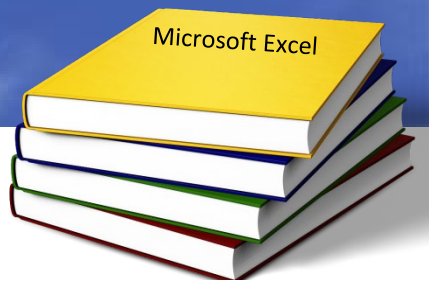
Num_chars specifies how many characters you want LEFT to extract; 1 if omitted.

Formula result = 655

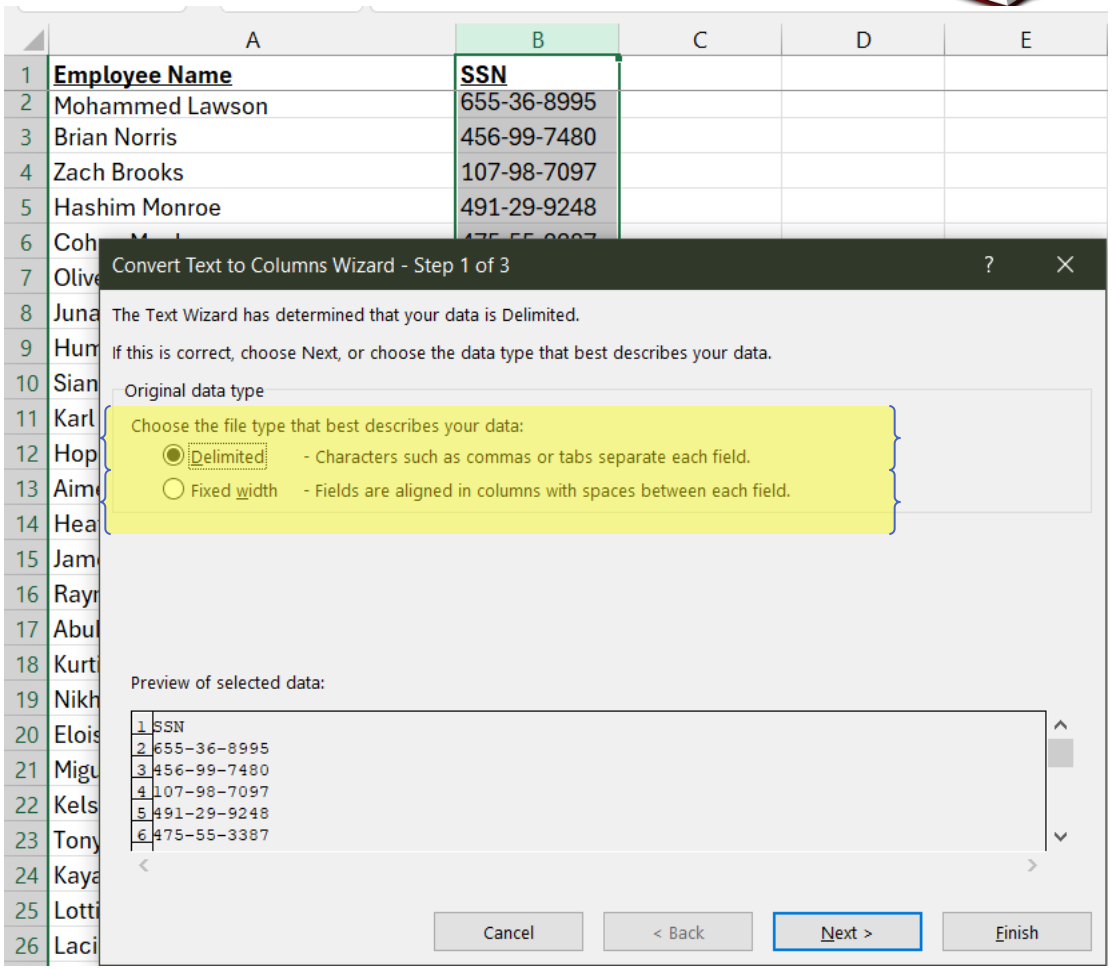
Help on this function

OK Cancel

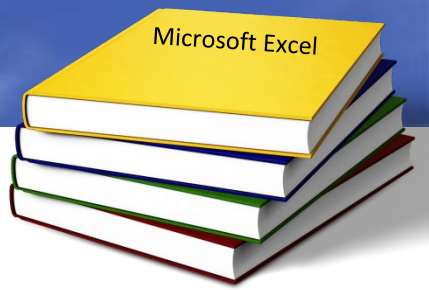
Text to Columns - 1



This tool allows you to break out the text in a cell into multiple columns.



Text to Columns - 2



Select the character that separates the text. This is how Excel knows where to insert the new columns.

	A	B	C	D	E
1	**Employee Name**	**SSN**			
2	Mohammed Lawson	655-36-8995			
3	Brian Norris	456-99-7480			
4	Zach Brooks	107-98-7097			
5	Hashim Monroe	491-29-9248			
6	Coh				
7	Olive				
8	Juna				
9	Hum				
10	Sian				
11	Karl				
12	Hop				
13	Aime				
14	Hea				
15	Jame				
16	Rayr				
17	Abul				
18	Kurti				
19	Nikh				
20	Eloi				
21	Migu				
22	Kels				
23	Tony				
24	Kaya				
25	Lotti				
26	Laci				

Convert Text to Columns Wizard - Step 2 of 3

This screen lets you set the delimiters your data contains. You can see how your text is affected in the preview below.

Delimiters

- [x] Tab
- [ ] Semicolon
- [ ] Comma
- [ ] Space
- [x] Other: -

- [ ] Treat consecutive delimiters as one

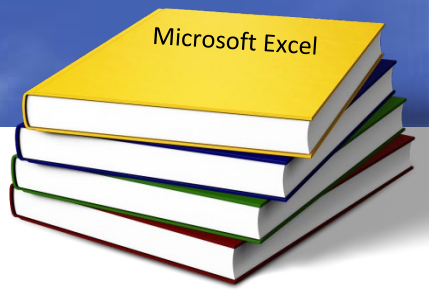
Text qualifier: "

Data preview

SSN		
655	36	8995
456	99	7480
107	98	7097
491	29	9248
475	55	3387

Cancel | < Back | Next > | Finish

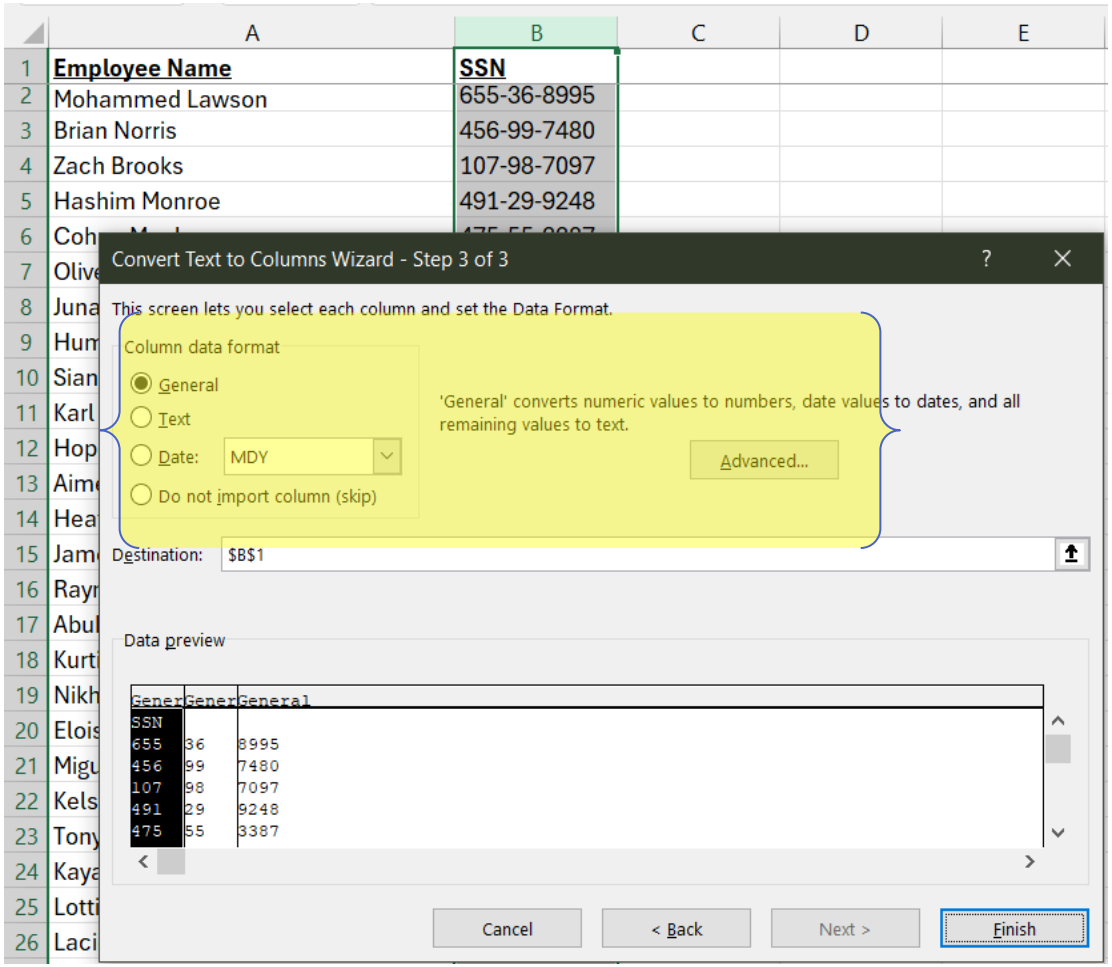
Text to Columns - 3



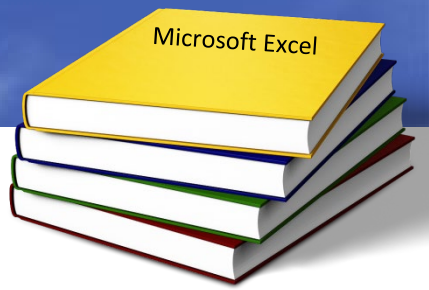
You can select the format for each of the 3 new columns.

Select the column at the bottom and then choose the format above.

Or you can just leave them formatted as the are.



TEXTAFTER Function



This function allows you to strip out text in a cell “after” a delimiter. In our example we are using a space as the delimiter.

	A	B	C	D
1	**Employee Name**	**Last Name**	**SSN**	
2	Mohammed Lawson	=TEXTAFTER(A2," ",1)	655	36
3	Brian Norris		456	99
4	Zach Brooks		107	98
5	Hashim Monroe		491	29
6	Cohen Mcclure		475	55
7	Oliver Solomon		247	99

Function Arguments

TEXTAFTER

Text	A2	=	"Mohammed Lawson"
Delimiter	" "	=	" "
Instance_num	1	=	1
Match_mode		=	number
Match_end		=	number

= "Lawson"

Returns text that's after delimiting characters.

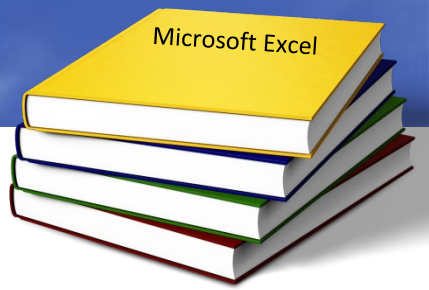
Match_end Whether to match the delimiter against the end of text. By default, they're not matched.

Formula result = Lawson

Help on this function

OK Cancel

TEXTBEFORE Function



This function allows you to strip out text in a cell “before” a delimiter. In our example we are using a space as the delimiter.

	A	B	C
1	**Employee Name**	**First Name**	**Last Name**
2	Mohammed Lawson	=TEXTBEFORE(A2," ",1)	Lawson
3	Brian Norris		Norris
4	Zach Brooks		Brooks
5	Hashim Monroe		Monroe
6	Cohen Mcclure		Mcclure
7	Oliver Solomon		Solomon

Function Arguments

TEXTBEFORE

Text	A2	=	"Mohammed Lawson"
Delimiter	" "	=	" "
Instance_num	1	=	1
Match_mode		=	number
Match_end		=	number

= "Mohammed"

Returns text that's before delimiting characters.

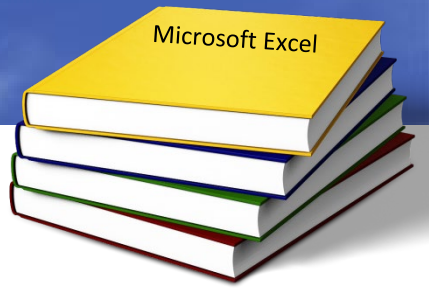
Instance_num The desired occurrence of delimiter. The default is 1. A negative number searches from the end.

Formula result = Mohammed

Help on this function

OK Cancel

Show Formulas/Functions

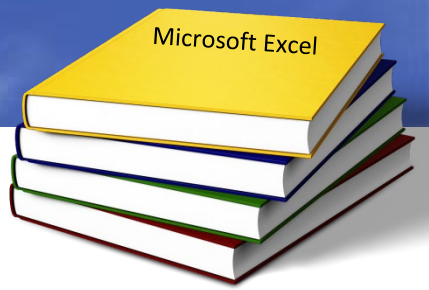


The Last Name column and the Last 4 SSN columns still contain formulas. You can use the ctrl + ` to show all the formulas in your worksheet.

	A	C	D	E
1	**Employee Name**	**Last Name**	**SSN**	**Last 4 SSN**
2	Mohammed Lawson	Lawson	655-36-8995	8995
3	Brian Norris	Norris	456-99-7480	7480
4	Zach Brooks	Brooks	107-98-7097	7097
5	Hashim Monroe	Monroe	491-29-9248	9248
6	Cohen Mcclure	Mcclure	475-55-3387	3387
7	Oliver Solomon	Solomon	247-99-8122	8122
8	Junaid Sparks	Sparks	659-22-7920	7920
9	Humza Castillo	Castillo	700-18-9844	9844
10	Sian Alvarez	Alvarez	104-98-5796	5796

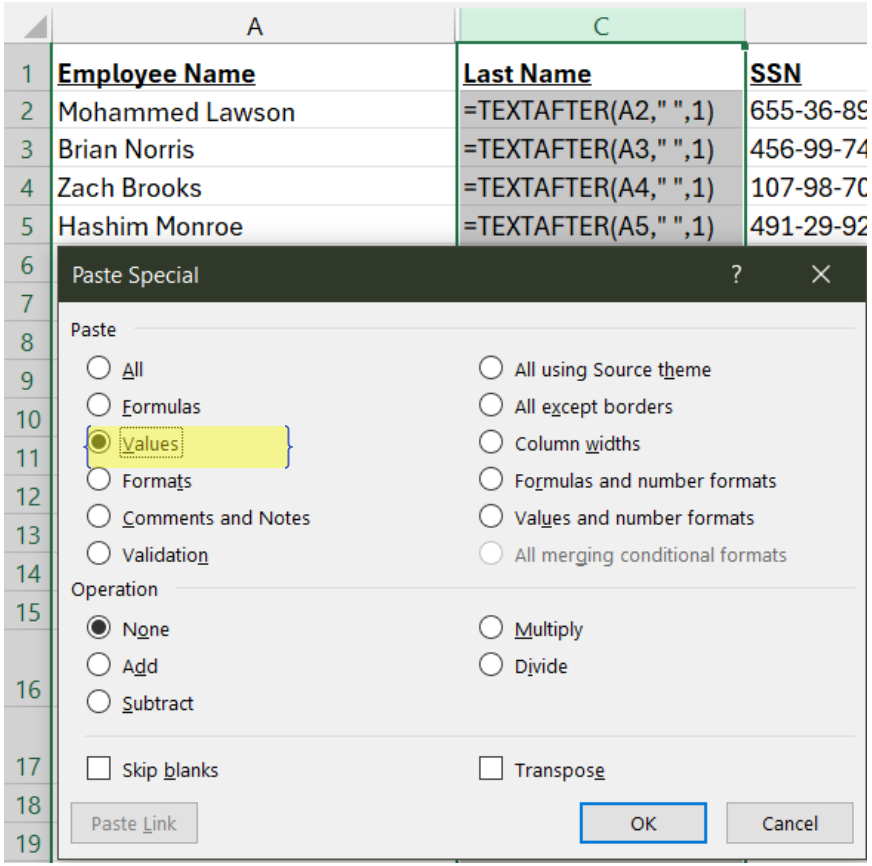
	A	C	D	E
1	**Employee Name**	**Last Name**	**SSN**	**Last 4 SSN**
2	Mohammed Lawson	=TEXTAFTER(A2," ",1)	655-36-8995	=RIGHT(D2,4)
3	Brian Norris	=TEXTAFTER(A3," ",1)	456-99-7480	=RIGHT(D3,4)
4	Zach Brooks	=TEXTAFTER(A4," ",1)	107-98-7097	=RIGHT(D4,4)
5	Hashim Monroe	=TEXTAFTER(A5," ",1)	491-29-9248	=RIGHT(D5,4)
6	Cohen Mcclure	=TEXTAFTER(A6," ",1)	475-55-3387	=RIGHT(D6,4)
7	Oliver Solomon	=TEXTAFTER(A7," ",1)	247-99-8122	=RIGHT(D7,4)
8	Junaid Sparks	=TEXTAFTER(A8," ",1)	659-22-7920	=RIGHT(D8,4)
9	Humza Castillo	=TEXTAFTER(A9," ",1)	700-18-9844	=RIGHT(D9,4)
10	Sian Alvarez	=TEXTAFTER(A10," ",1)	104-98-5796	=RIGHT(D10,4)

Copy/Paste Special

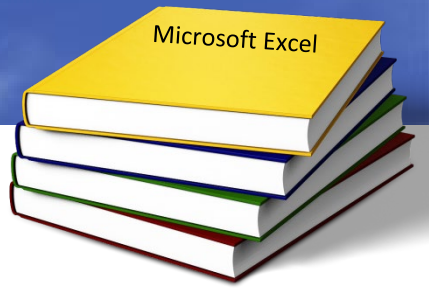


Using formulas/functions in a column make that column dependent on other columns/sources. To break this dependency, use copy and paste special.

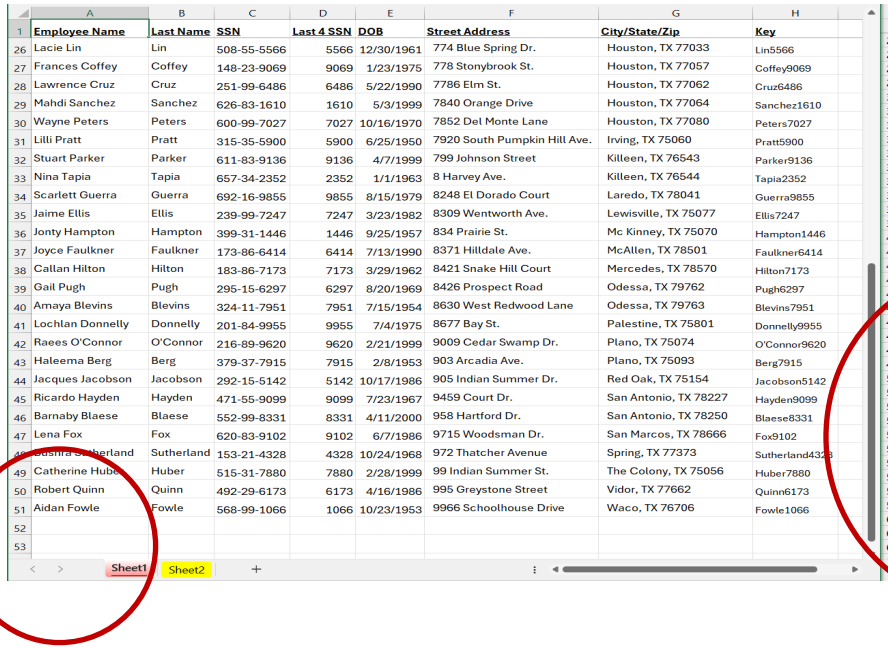
Select the cells you want and copy them. Then you can past special right on top of that same column. Choose Values and that will only paste in the result of the formula/function.



Comparing 2 Lists



This shows two worksheets that have a list of employee names. They should be the same names, but you can see that Sheet1 has 50 names and Sheet2 only has 47.



	A	B	C	D	E	F	G	H
1	Employee Name	Last Name	SSN	Last 4 SSN	DOB	Street Address	City/State/Zip	Key
26	Lacie Lin	Lin	508-55-5566	5566	12/30/1961	774 Blue Spring Dr.	Houston, TX 77033	Lin5566
27	Frances Coffey	Coffey	148-23-9069	9069	1/23/1975	778 Stonybrook St.	Houston, TX 77057	Coffey9069
28	Lawrence Cruz	Cruz	251-99-6486	6486	5/22/1990	7786 Elm St.	Houston, TX 77062	Cruz6486
29	Mahdi Sanchez	Sanchez	626-83-1610	1610	5/3/1999	7840 Orange Drive	Houston, TX 77064	Sanchez1610
30	Wayne Peters	Peters	600-99-7027	7027	10/16/1970	7852 Del Monte Lane	Houston, TX 77080	Peters7027
31	Lilli Pratt	Pratt	315-35-5900	5900	6/25/1950	7920 South Pumpkin Hill Ave.	Irving, TX 75060	Pratt5900
32	Stuart Parker	Parker	611-83-9136	9136	4/7/1999	799 Johnson Street	Killeen, TX 76543	Parker9136
33	Nina Tapia	Tapia	657-34-2352	2352	1/1/1963	8 Harvey Ave.	Killeen, TX 76544	Tapia2352
34	Scarlett Guerra	Guerra	692-16-9855	9855	8/15/1979	8248 El Dorado Court	Laredo, TX 78041	Guerra9855
35	Jaime Ellis	Ellis	239-99-7247	7247	3/23/1982	8309 Wentworth Ave.	Lewisville, TX 75077	Ellis7247
36	Jonty Hampton	Hampton	399-31-1446	1446	9/25/1957	834 Prairie St.	Mc Kinney, TX 75070	Hampton1446
37	Joyce Faulkner	Faulkner	173-86-6414	6414	7/13/1990	8371 Hilldale Ave.	McAllen, TX 78501	Faulkner6414
38	Callan Hilton	Hilton	183-86-7173	7173	3/29/1962	8421 Snake Hill Court	Mercedes, TX 78570	Hilton7173
39	Gail Pugh	Pugh	295-15-6297	6297	8/20/1969	8426 Prospect Road	Odessa, TX 79762	Pugh6297
40	Amaya Blevins	Blevins	324-11-7951	7951	7/15/1954	8630 West Redwood Lane	Odessa, TX 79763	Blevins7951
41	Lochlan Donnelly	Donnelly	201-84-9955	9955	7/4/1975	8677 Bay St.	Palestine, TX 75801	Donnelly9955
42	Raees O'Connor	O'Connor	216-89-9620	9620	2/21/1999	9009 Cedar Swamp Dr.	Plano, TX 75074	O'Connor9620
43	Haleema Berg	Berg	379-37-7915	7915	2/8/1953	903 Arcadia Ave.	Plano, TX 75093	Berg7915
44	Jacques Jacobson	Jacobson	292-15-5142	5142	10/17/1986	905 Indian Summer Dr.	Red Oak, TX 75154	Jacobson5142
45	Ricardo Hayden	Hayden	471-55-9099	9099	7/23/1967	9459 Court Dr.	San Antonio, TX 78227	Hayden9099
46	Barnaby Blaese	Blaese	552-99-8331	8331	4/11/2000	958 Hartford Dr.	San Antonio, TX 78250	Blaese8331
47	Lena Fox	Fox	620-83-9102	9102	6/7/1986	9715 Woodsman Dr.	San Marcos, TX 78666	Fox9102
48	Joshua Sutherland	Sutherland	153-21-4328	4328	10/24/1968	972 Thatcher Avenue	Spring, TX 77373	Sutherland4328
49	Catherine Huber	Huber	515-31-7880	7880	2/28/1999	99 Indian Summer St.	The Colony, TX 75056	Huber7880
50	Robert Quinn	Quinn	492-29-6173	6173	4/16/1986	995 Greystone Street	Vidor, TX 77662	Quinn6173
51	Aidan Fowle	Fowle	568-99-1066	1066	10/23/1953	9966 Schoolhouse Drive	Waco, TX 76706	Fowle1066
52								
53								

Sheet1 Sheet2

	A	B	C	D	E	F	G	H	I	J
1	Employee ID	Name	Last 4 SSN	Annual	Hourl Rate	OT Rate	Vacation Hours	Sick Hours	Last Name	Key
26	2352	Monroe, Hashim	9248	$82,463.00	$39.65	$59.48	20	149	Monroe	Monroe9248
27	3229	Mccall, Aimee	4318	$82,579.00	$39.70	$59.55	76	128	Mccall	Mccall4318
28	2234	O'Connor, Raees	9620	$82,930.00	$39.87	$59.81	13	77	O'Connor	O'Connor9620
29	1616	Fletcher, Heath	5732	$83,329.00	$40.06	$60.09	60	39	Fletcher	Fletcher5732
30	3230	Jacobson, Jacques	5142	$84,837.00	$40.79	$61.19	4	36	Jacobson	Jacobson5142
31	2030	Andersen, Abubakar	7629	$87,107.00	$41.88	$62.82	57	58	Andersen	Andersen7629
32	1792	Hampton, Jonty	1446	$88,873.00	$42.73	$64.10	22	3	Hampton	Hampton1446
33	2312	Norris, Brian	7480	$89,682.00	$43.12	$64.68	19	112	Norris	Norris7480
34	2730	Pratt, Lilli	5900	$90,379.00	$43.45	$65.18	45	22	Pratt	Pratt5900
35	2219	Sutherland, Bushra	4328	$90,757.00	$43.63	$65.45	8	71	Sutherland	Sutherland4328
36	1978	Lawson, Mohammed	8995	$91,575.00	$44.03	$66.05	59	159	Lawson	Lawson8995
37	2439	Alvarez, Sian	5796	$91,689.00	$44.08	$66.12	66	81	Alvarez	Alvarez5796
38	2180	Mcdaniel, Kaya	7654	$91,774.00	$44.12	$66.18	30	181	Mcdaniel	Mcdaniel7654
39	1842	Peters, Wayne	7027	$93,906.00	$45.15	$67.73	48	188	Peters	Peters7027
40	1619	Guerra, Scarlett	9855	$95,232.00	$45.78	$68.67	63	114	Guerra	Guerra9855
41	1614	Brooks, Zach	7097	$95,769.00	$46.04	$69.06	9	40	Brooks	Brooks7097
42	2673	Bryant, Miguel	7671	$96,444.00	$46.37	$69.56	30	181	Bryant	Bryant7671
43	2083	Mcclure, Carson	3387	$97,761.00	$47.00	$70.50	91	10	Mcclure	Mcclure3387
44	1694	Blevins, Amaya	7951	$99,456.00	$47.82	$71.73	26	14	Blevins	Blevins7951
45	3262	Sanchez, Mahdi	1610	$99,489.00	$47.83	$71.75	63	32	Sanchez	Sanchez1610
46	2732	Parker, Stuart	9136	$101,055.00	$48.58	$72.87	45	76	Parker	Parker9136
47	2660	Huber, Catherine	7880	$101,830.00	$48.96	$73.44	93	111	Huber	Huber7880
48	2954	Fox, Lena	9102	$102,086.00	$49.08	$73.62	89	82	Fox	Fox9102
49										
50										
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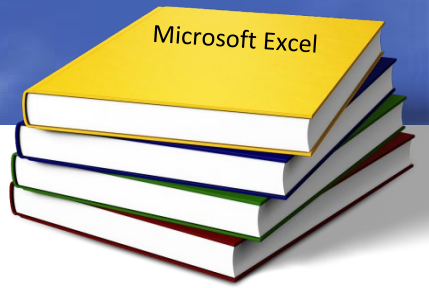
Sheet1 Sheet2

Creating a “key”

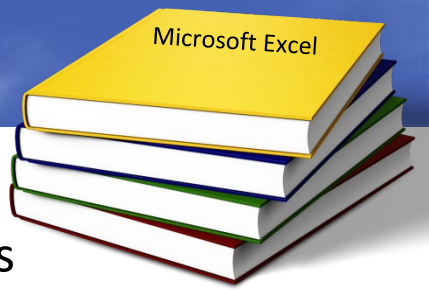


The most important piece to have is a “key” or a unique identifier for each record.

This key must be unique per record and exist in both of the worksheets / workbooks.

We’ve already looked at several functions that will help us.

CONCAT Function



This function allows you to string the text from two or more cells together into a new cell.

	A	B	C	D	E	F	G	H
1	**Employee Name**	**Last Name**	**SSN**	**Last 4 SSN**	**DOB**	**Street Address**	**City/State/Zip**	**Key**
2	Mohammed Lawson	Lawson	655-36-8995	8995	21976	127 Piper St.	Allen, TX 75002	
3	Brian Norris	Norris	456-99-7480	7480				
4	Zach Brooks	Brooks	107-98-7097	7097				
5	Hashim Monroe	Monroe	491-29-9248	9248				
6	Cohen Mcclure	Mcclure	475-55-3387	3387				
7	Oliver Solomon	Solomon	247-99-8122	8122				
8	Junaid Sparks	Sparks	659-22-7920	7920				
9	Humza Castillo	Castillo	700-18-9844	9844				
10	Sian Alvarez	Alvarez	104-98-5796	5796				
11	Karl Kent	Kent	641-27-5132	5132				
12	Hope Gill	Gill	589-99-8870	8870				
13	Aimee Mccall	Mccall	212-89-4318	4318				
14	Heath Fletcher	Fletcher	719-18-5732	5732				
15	James Lewis	Lewis	135-23-8590	8590				
16	Raymond Graham	Graham	268-17-0791	791				

Function Arguments

CONCAT

Text1 B2 = "Lawson"

Text2 D2 = "8995"

Text3 = text

= "Lawson8995"

Concatenates a list or range of text strings.

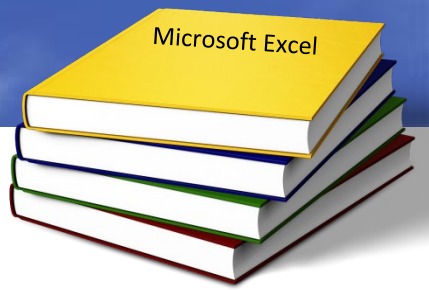
Text2: text1,text2,... are 1 to 254 text strings or ranges to be joined to a single text string.

Formula result = Lawson8995

Help on this function

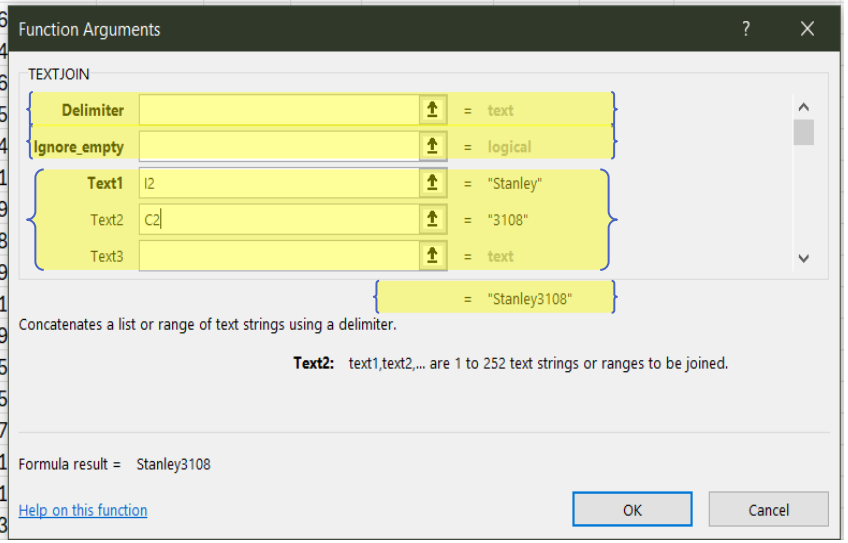
OK Cancel

TEXTJOIN Function

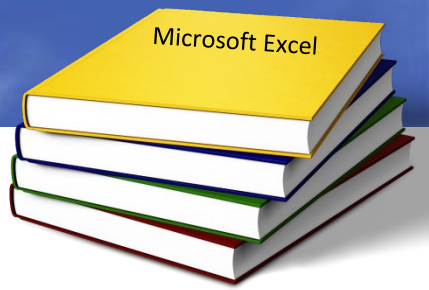


We will use the TEXTJOIN function to join the last name and the last 4 of the SSN together in column J.

	A	B	C	D	E	F	G	H	I	J
1	Employee ID	Name	Last 4 SSN	Annual	Hourl Rate	OT Rate	Vacation Hours	Sick Hours	Last Name	Key
2	1850	Stanley, Lottie	3108	$55,035.00	$26.46	$39.69	81	148	Stanley	=TEXTJOIN(,,I2,C2)
3	2762	Gill, Hope	8870	$55,483.00	$26.67	$40.01	32	64	Gill	
4	2303	Coffey, Frances	906							
5	3222	Castillo, Humza	984							
6	2055	Lin, Lacie	556							
7	3235	Donnelly, Lochlan	995							
8	2035	Ellis, Jaime	724							
9	2462	Graham, Raymond	791							
10	2162	Hayden, Ricardo	909							
11	2442	Cruz, Lawrence	648							
12	2533	Pugh, Gail	629							
13	2733	Faulkner, Joyce	641							
14	1767	Lewis, James	859							
15	2673	Bailey, Kurtis	885							
16	2872	Gibbs, Nikhil	815							
17	2163	Quinn, Robert	617							
18	2183	Berg, Haleema	791							
19	2409	Hernandez, Eloise	241							
20	3016	Blaese, Barnaby	833							

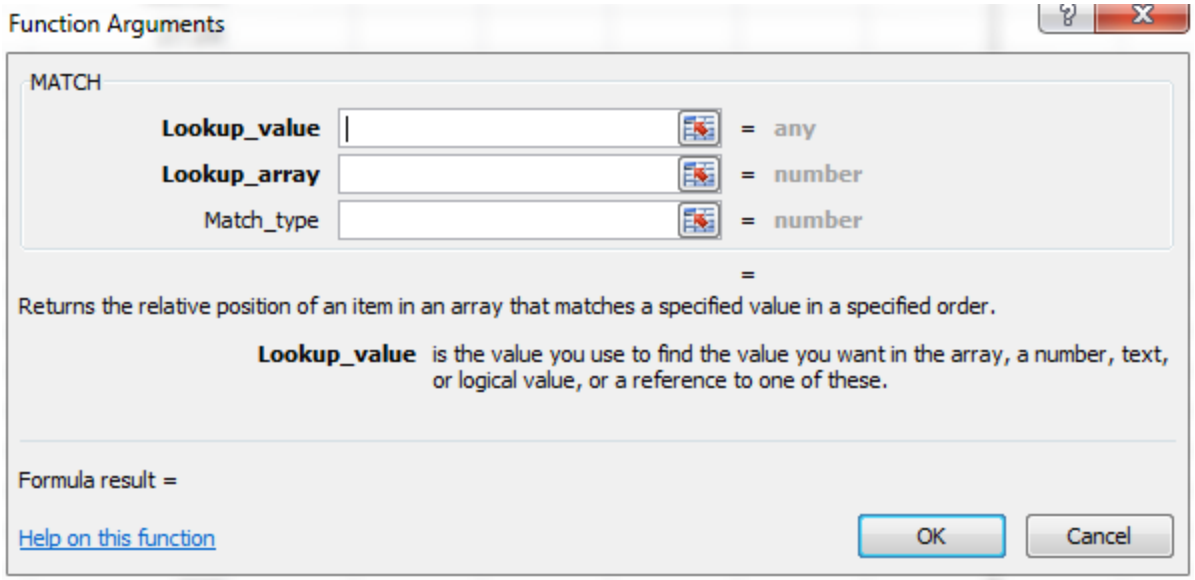


MATCH Function

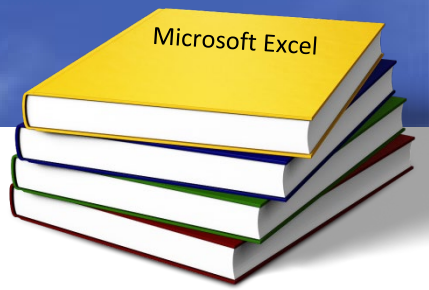


This function is very helpful if you have two lists in separate worksheets or in separate workbooks and you need to see which records are not in both lists (or which records are in both lists).

It basically says to find List 1 – Record 1 in List 2 and then tell me what row it's located on.



MATCH Function



Function Arguments

MATCH

Lookup_value	H2	=	"Lawson8995"
Lookup_array	Sheet2!J:J	=	{"Key";"Stanley3108";"Gill8870";"Coffey9069";"Cast
Match_type	0	=	0

= 36

Returns the relative position of an item in an array that matches a specified value in a specified order.

Match_type is a number 1, 0, or -1 indicating which value to return.

Formula result = 36

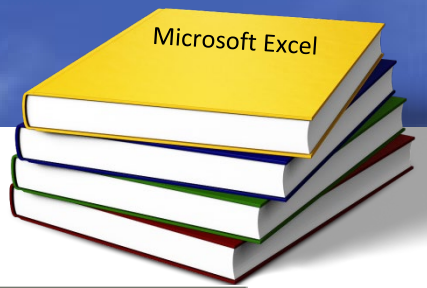
Help on this function

OK Cancel

lookup_value Required. The value that you want to match in ***lookup_array***. For example, when you look up someone's number in a telephone book, you are using the person's name as the lookup value, but the telephone number is the value you want.

The ***lookup_value*** argument can be a value (number, text, or logical value) or a cell reference to a number, text, or logical value.

MATCH Function



Function Arguments

MATCH

Lookup_value	H2	=	"Lawson8995"
Lookup_array	Sheet2!J:J	=	{"Key";"Stanley3108";"Gill8870";"Coffey9069";"Cast
Match_type	0	=	0

= 36

Returns the relative position of an item in an array that matches a specified value in a specified order.

Match_type is a number 1, 0, or -1 indicating which value to return.

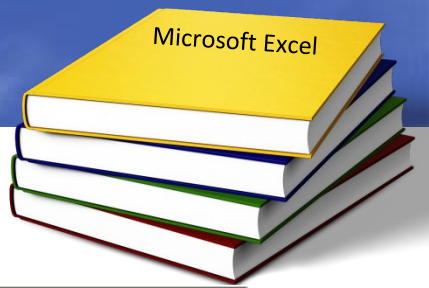
Formula result = 36

Help on this function

OK Cancel

- **lookup_array** Required. The range of cells being searched.

MATCH Function



Function Arguments

MATCH

Lookup_value	H2	=	"Lawson8995"
Lookup_array	Sheet2!J:J	=	{"Key";"Stanley3108";"Gill8870";"Coffey9069";"Cast
Match_type	0	=	0

= 36

Returns the relative position of an item in an array that matches a specified value in a specified order.

Match_type is a number 1, 0, or -1 indicating which value to return.

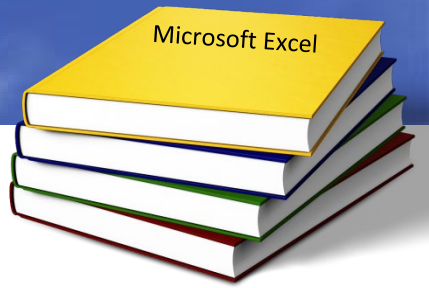
MATCH_TYPE	BEHAVIOR
1 or omitted	**MATCH** finds the largest value that is less than or equal to ***lookup_value***. The values in the ***lookup_array*** argument must be placed in ascending order, for example: ...-2, -1, 0, 1, 2, ..., A-Z, FALSE, TRUE.
0	**MATCH** finds the first value that is exactly equal to ***lookup_value***. The values in the ***lookup_array*** argument can be in any order.
-1	**MATCH** finds the smallest value that is greater than or equal to ***lookup_value***. The values in the ***lookup_array*** argument must be placed in descending order, for example: TRUE, FALSE, Z-A, ...2, 1, 0, -1, -2, ..., and so on.

Formula result = 36

Help on this function

OK Cancel

MATCH Function



	B	C	D	E	F	G	H	I
1	Last Name	SSN	Last 4 SSN	DOB	Street Address	City/State/Zip	Key	Location in Sheet2
2	Lawson	655-36-8995	8995	3/1/1960	127 Piper St.	Allen, TX 75002	Lawson8995	36
3	Norris	456-99-7480	7480	9/12/1950	15 Jefferson Ave.	Alvin, TX 77511	Norris7480	33
4	Brooks	107-98-7097	7097	12/9/1952	163 Pumpkin Hill St.	Amarillo, TX 79109	Brooks7097	41
5	Monroe	491-29-9248	9248	7/9/1986	25 South Arch Dr.	Arlington, TX 76013	Monroe9248	26
6	Mcclure	475-55-3387	3387	3/18/1962	256 Park Ave.	Austin, TX 78741	Mcclure3387	43
7	Solomon	247-99-8122	8122	2/1/1958	347 Sunnyslope Rd.	Austin, TX 78745	Solomon8122	22
8	Sparks	659-22-7920	7920	7/24/1970	354 West Lookout Avenue	Beeville, TX 78102	Sparks7920	23
9	Castillo	700-18-9844	9844	11/1/1979	399 N. Glenridge Street	College Station, TX 77840	Castillo9844	5
10	Alvarez	104-98-5796	5796	11/27/1982	401 Summerhouse Avenue	Copperas Cove, TX 76522	Alvarez5796	37
11	Kent	641-27-5132	5132	12/5/1995	42 W. Del Monte Street	Corpus Christi, TX 78411	Kent5132	#N/A
12	Gill	589-99-8870	8870	12/27/1967	44 Ridgewood Ave.	Dallas, TX 75220	Gill8870	3
13	Mccall	212-89-4318	4318	8/9/1981	580 Randall Mill Ave.	Dallas, TX 75228	Mccall4318	27
14	Fletcher	719-18-5732	5732	1/9/1975	588 Brook Drive	Dallas, TX 75229	Fletcher5732	29
15	Lewis	135-23-8590	8590	7/30/1989	59 Newcastle Dr.	Dallas, TX 75234	Lewis8590	14
16	Graham	268-17-0791	791	1/5/1966	62 West Bishop Dr.	Dallas, TX 75287	Graham791	9
17	Andersen	123-98-7629	7629	5/21/1951	633 Sleepy Hollow Dr.	Denton, TX 76201	Andersen7629	31
18	Bailey	300-15-0885	885	5/21/1960	70 Southampton Drive	El Paso, TX 79905	Bailey885	15
19	Gibbs	769-96-8150	8150	12/21/1984	7109 Spring St.	El Paso, TX 79907	Gibbs8150	16
20	Hernandez	391-33-2410	2410	5/3/1971	717 Edgewater Lane	El Paso, TX 79915	Hernandez2410	19
21	Bryant	531-71-7671	7671	2/9/1996	727 Cactus Lane	El Paso, TX 79930	Bryant7671	42
22	Mcgee	721-18-6412	6412	6/12/1966	7389 Chestnut Street	Fort Worth, TX 76133	Mcgee6412	24
23	Terry	768-96-7561	7561	5/27/1964	7551 Applegate St.	Grapevine, TX 76051	Terry7561	#N/A
24	Mcdaniel	344-80-7654	7654	1/17/1969	7629 Windsor St.	Harlingen, TX 78550	Mcdaniel7654	38
25	Stanley	368-37-3108	3108	5/10/1981	7642 Amherst St.	Houston, TX 77009	Stanley3108	2
26	Lin	508-55-5566	5566	12/30/1961	774 Blue Spring Dr.	Houston, TX 77033	Lin5566	6
27	Coffey	148-23-9069	9069	1/23/1975	778 Stonybrook St.	Houston, TX 77057	Coffey9069	4
28	Cruz	251-99-6486	6486	5/22/1990	7786 Elm St.	Houston, TX 77062	Cruz6486	11
29	Sanchez	626-83-1610	1610	5/3/1999	7840 Orange Drive	Houston, TX 77064	Sanchez1610	45

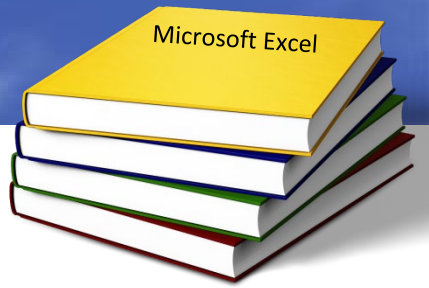
Sheet1 Sheet2

	B	C	D	E	F	G	H	I	J
1	Name	Last 4 SSN	Annual	Hourl Rate	OT Rate	Vacation Hours	Sick Hours	Last Name	Key
2	Stanley, Lottie	3108	$55,035.00	$26.46	$39.69	81	148	Stanley	Stanley3108
3	Gill, Hope	8870	$55,483.00	$26.67	$40.01	32	64	Gill	Gill8870
4	Coffey, Frances	9069	$57,326.00	$27.56	$41.34	53	152	Coffey	Coffey9069
5	Castillo, Humza	9844	$57,436.00	$27.61	$41.42	56	116	Castillo	Castillo9844
6	Lin, Lacie	5566	$58,152.00	$27.96	$41.94	33	14	Lin	Lin5566
7	Donnelly, Lochlan	9955	$58,702.00	$28.22	$42.33	17	124	Donnelly	Donnelly9955
8	Ellis, Jaime	7247	$59,157.00	$28.44	$42.66	32	127	Ellis	Ellis7247
9	Graham, Raymond	791	$59,859.00	$28.78	$43.17	15	7	Graham	Graham791
10	Hayden, Ricardo	9099	$60,667.00	$29.17	$43.76	41	161	Hayden	Hayden9099
11	Cruz, Lawrence	6486	$61,100.00	$29.38	$44.07	6	117	Cruz	Cruz6486
12	Pugh, Gail	6297	$63,834.00	$30.69	$46.04	58	192	Pugh	Pugh6297
13	Faulkner, Joyce	6414	$64,166.00	$30.85	$46.28	11	46	Faulkner	Faulkner6414
14	Lewis, James	8590	$64,239.00	$30.88	$46.32	27	4	Lewis	Lewis8590
15	Bailey, Kurtis	885	$64,380.00	$30.95	$46.43	92	151	Bailey	Bailey885
16	Gibbs, Nikhil	8150	$65,188.00	$31.34	$47.01	33	129	Gibbs	Gibbs8150
17	Quinn, Robert	6173	$66,443.00	$31.94	$47.91	15	151	Quinn	Quinn6173
18	Berg, Haleema	7915	$67,579.00	$32.49	$48.74	40	149	Berg	Berg7915
19	Hernandez, Eloise	2410	$69,937.00	$33.62	$50.43	39			
20	Blaese, Barnaby	8331	$70,110.00	$33.71	$50.57	48			
21	Fowle, Aidan	1066	$70,630.00	$33.96	$50.94	27			
22	Solomon, Oliver	8122	$74,578.00	$35.85	$53.78	23	114		
23	Sparks, Junaid	7920	$75,785.00	$36.44	$54.66	57	90		
24	Mcgee, Kelsie	6412	$77,001.00	$37.02	$55.53	49	92		
25	Tapia, Nina	2352	$77,362.00	$37.19	$55.79	91	40		
26	Monroe, Hashim	9248	$82,463.00	$39.65	$59.48	20	149		
27	Mccall, Aimee	4318	$82,579.00	$39.70	$59.55	76	128	Mccall	Mccall4318
28	O'Connor, Raees	9620	$82,930.00	$39.87	$59.81	13	77	O'Connor	O'Connor9620
29	Fletcher, Heath	5732	$83,329.00	$40.06	$60.09	60	39	Fletcher	Fletcher5732
30	Jacobson, Jacques	5142	$84,837.00	$40.79	$61.19	4	36	Jacobson	Jacobson5142
31	Andersen, Abubakar	7629	$87,107.00	$41.88	$62.82	57	58	Andersen	Andersen7629
32	Hampton, Jonty	1446	$88,873.00	$42.73	$64.10	22	3	Hampton	Hampton1446
33	Norris, Brian	7480	$89,682.00	$43.12	$64.68	19	112	Norris	Norris7480
34	Pratt, Lilli	5900	$90,379.00	$43.45	$65.18	45	22	Pratt	Pratt5900
35	Sutherland, Bushra	4328	$90,757.00	$43.63	$65.45	8	71	Sutherland	Sutherland4328
36	Lawson, Mohammed	8995	$91,575.00	$44.03	$66.05	59	159	Lawson	Lawson8995
37	Alvarez, Sian	5796	$91,689.00	$44.08	$66.12	66	81	Alvarez	Alvarez5796
38	Mcdaniel, Kaya	7654	$91,774.00	$44.12	$66.18	30	181	Mcdaniel	Mcdaniel7654

Sheet1 Sheet2

The result returned by this function is the row number where the exact match was found. Records that are not found show #N/A.

Merging Data from 2+ sources



It's possible you will want to bring data out of one or more worksheets/workbooks. We will bring Employee ID from Sheet2 into Sheet1.

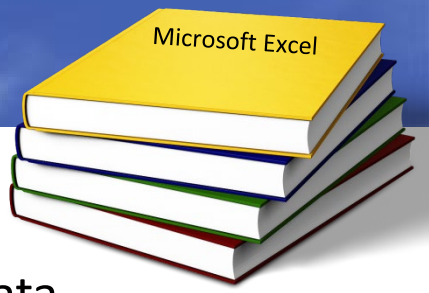
Employee Name	Last Name	SSN	Last 4 SSN	DOB	Street Address	City/State/Zip	Key
Lacie Lin	Lin	508-55-5566	5566	12/30/1961	774 Blue Spring Dr.	Houston, TX 77033	Lin5566
Frances Coffey	Coffey	148-23-9069	9069	1/23/1975	778 Stonybrook St.	Houston, TX 77057	Coffey9069
Lawrence Cruz	Cruz	251-99-6486	6486	5/22/1990	7786 Elm St.	Houston, TX 77062	Cruz6486
Mahdi Sanchez	Sanchez	626-83-1610	1610	5/3/1999	7840 Orange Drive	Houston, TX 77064	Sanchez1610
Wayne Peters	Peters	600-99-7027	7027	10/16/1970	7852 Del Monte Lane	Houston, TX 77080	Peters7027
Lilli Pratt	Pratt	315-35-5900	5900	6/25/1950	7920 South Pumpkin Hill Ave.	Irving, TX 75060	Pratt5900
Stuart Parker	Parker	611-83-9136	9136	4/7/1999	799 Johnson Street	Killeen, TX 76543	Parker9136
Nina Tapia	Tapia	657-34-2352	2352	1/1/1963	8 Harvey Ave.	Killeen, TX 76544	Tapia2352
Scarlett Guerra	Guerra	692-16-9855	9855	8/15/1979	8248 El Dorado Court	Laredo, TX 78041	Guerra9855
Jaime Ellis	Ellis	239-99-7247	7247	3/23/1982	8309 Wentworth Ave.	Lewisville, TX 75077	Ellis7247
Jonty Hampton	Hampton	399-31-1446	1446	9/25/1957	834 Prairie St.	Mc Kinney, TX 75070	Hampton1446
Joyce Faulkner	Faulkner	173-86-6414	6414	7/13/1990	8371 Hilldale Ave.	McAllen, TX 78501	Faulkner6414
Callan Hilton	Hilton	183-86-7173	7173	3/29/1962	8421 Snake Hill Court	Mercedes, TX 78570	Hilton7173
Gail Pugh	Pugh	295-15-6297	6297	8/20/1969	8426 Prospect Road	Odessa, TX 79762	Pugh6297
Amaya Blevins	Blevins	324-11-7951	7951	7/15/1954	8630 West Redwood Lane	Odessa, TX 79763	Blevins7951
Lochlan Donnelly	Donnelly	201-84-9955	9955	7/4/1975	8677 Bay St.	Palestine, TX 75801	Donnelly9955
Raees O'Connor	O'Connor	216-89-9620	9620	2/21/1999	9009 Cedar Swamp Dr.	Plano, TX 75074	O'Connor9620
Haleema Berg	Berg	379-37-7915	7915	2/8/1953	903 Arcadia Ave.	Plano, TX 75093	Berg7915
Jacques Jacobson	Jacobson	292-15-5142	5142	10/17/1986	905 Indian Summer Dr.	Red Oak, TX 75154	Jacobson5142
Ricardo Hayden	Hayden	471-55-9099	9099	7/23/1967	9459 Court Dr.	San Antonio, TX 78227	Hayden9099
Barnaby Blaese	Blaese	552-99-8331	8331	4/11/2000	958 Hartford Dr.	San Antonio, TX 78250	Blaese8331
Lena Fox	Fox	620-83-9102	9102	6/7/1986	9715 Woodsman Dr.	San Marcos, TX 78666	Fox9102
Bushra Sutherland	Sutherland	153-21-4328	4328	10/24/1968	972 Thatcher Avenue	Spring, TX 77373	Sutherland4328
Catherine Huber	Huber	515-31-7880	7880	2/28/1999	99 Indian Summer St.	The Colony, TX 75056	Huber7880
Robert Quinn	Quinn	492-29-6173	6173	4/16/1986	995 Greystone Street	Vidor, TX 77662	Quinn6173
Aidan Fowle	Fowle	568-99-1066	1066	10/23/1953	9966 Schoolhouse Drive	Waco, TX 76706	Fowle1066

Sheet1 Sheet2

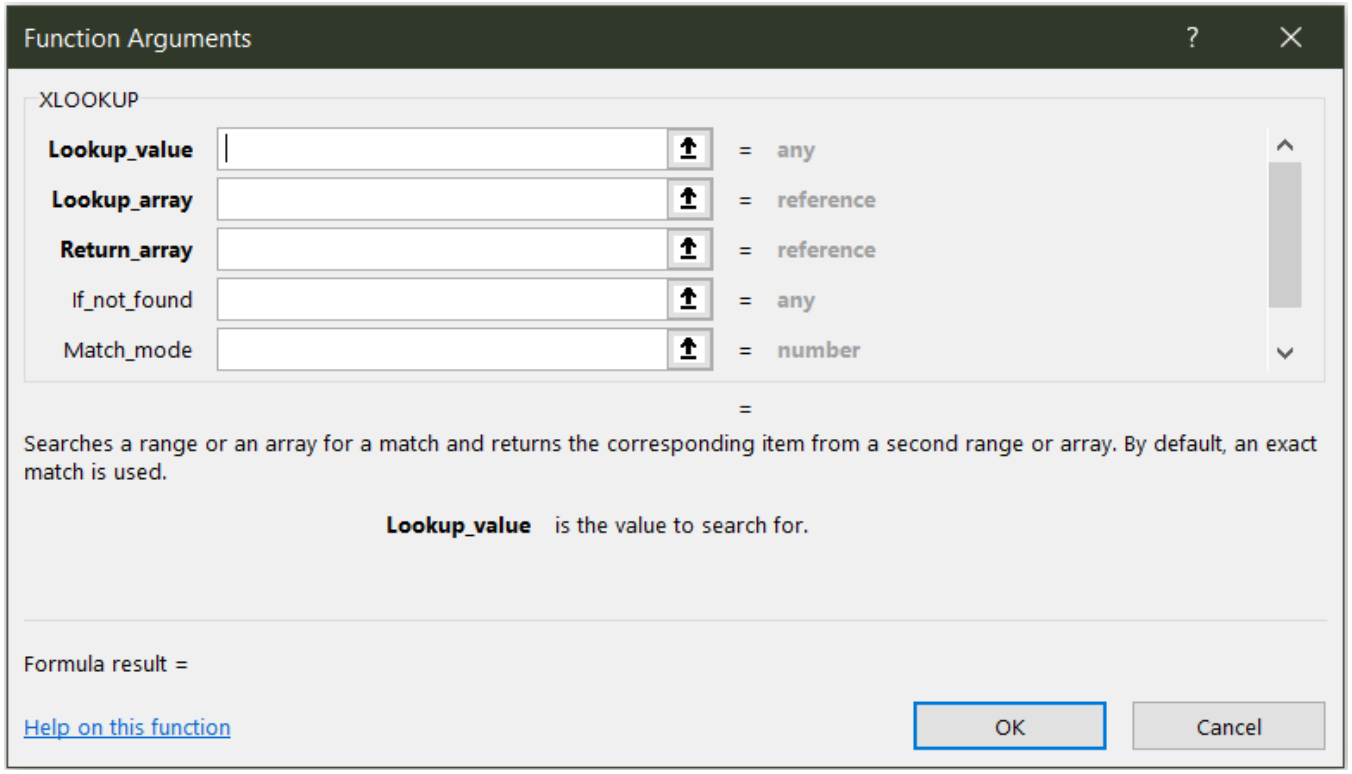
Employee ID	Name	Last 4 SSN	Annual	Hourl Rate	OT Rate	Vacation Hours	Sick Hours	Last Name	Key
2352	Monroe, Hashim	9248	$82,463.00	$39.65	$59.48	20	149	Monroe	Monroe9248
3229	Mccall, Aimee	4318	$82,579.00	$39.70	$59.55	76	128	Mccall	Mccall4318
2234	O'Connor, Raees	9620	$82,930.00	$39.87	$59.81	13	77	O'Connor	O'Connor9620
1616	Fletcher, Heath	5732	$83,329.00	$40.06	$60.09	60	39	Fletcher	Fletcher5732
3230	Jacobson, Jacques	5142	$84,837.00	$40.79	$61.19	4	36	Jacobson	Jacobson5142
2030	Andersen, Abubakar	7629	$87,107.00	$41.88	$62.82	57	58	Andersen	Andersen7629
1792	Hampton, Jonty	1446	$88,873.00	$42.73	$64.10	22	3	Hampton	Hampton1446
2312	Norris, Brian	7480	$89,682.00	$43.12	$64.68	19	112	Norris	Norris7480
2730	Pratt, Lilli	5900	$90,379.00	$43.45	$65.18	45	22	Pratt	Pratt5900
2219	Sutherland, Bushra	4328	$90,757.00	$43.63	$65.45	8	71	Sutherland	Sutherland4328
1978	Lawson, Mohammed	8995	$91,575.00	$44.03	$66.05	59	159	Lawson	Lawson8995
2439	Alvarez, Sian	5796	$91,689.00	$44.08	$66.12	66	81	Alvarez	Alvarez5796
2180	Mcdaniel, Kaya	7654	$91,774.00	$44.12	$66.18	30	181	Mcdaniel	Mcdaniel7654
1842	Peters, Wayne	7027	$93,906.00	$45.15	$67.73	48	188	Peters	Peters7027
1619	Guerra, Scarlett	9855	$95,232.00	$45.78	$68.67	63	114	Guerra	Guerra9855
1614	Brooks, Zach	7097	$95,769.00	$46.04	$69.06	9	40	Brooks	Brooks7097
2673	Bryant, Miguel	7671	$96,444.00	$46.37	$69.56	30	181	Bryant	Bryant7671
2083	Mcclure, Cohen	3387	$97,761.00	$47.00	$70.50	91	10	Mcclure	Mcclure3387
1694	Blevins, Amaya	7951	$99,456.00	$47.82	$71.73	26	14	Blevins	Blevins7951
3262	Sanchez, Mahdi	1610	$99,489.00	$47.83	$71.75	63	32	Sanchez	Sanchez1610
2732	Parker, Stuart	9136	$101,055.00	$48.58	$72.87	45	76	Parker	Parker9136
2660	Huber, Catherine	7880	$101,830.00	$48.96	$73.44	93	111	Huber	Huber7880
2954	Fox, Lena	9102	$102,086.00	$49.08	$73.62	89	82	Fox	Fox9102

Sheet1 Sheet2

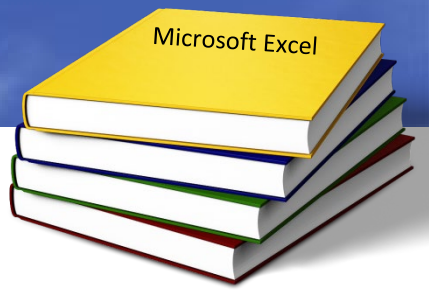
XLOOKUP Function



This function is very helpful if you have two lists in separate worksheets or in separate workbooks and you need to merge data together into one list.



XLOOKUP Function



Function Arguments

XLOOKUP

Lookup_value	H2	=	"Lawson8995"
Lookup_array	Sheet2!J:J	=	{"Key";"Stanley3108";"Gill8870";"Coffey9069";...
Return_array	Sheet2!A:A	=	{"Employee ID";1850;2762;2303;3222;2055;32...
If_not_found	"Not Found"	=	"Not Found"
Match_mode	0	=	0

= 1978

Searches a range or an array for a match and returns the corresponding item from a second range or array. By default, an exact match is used.

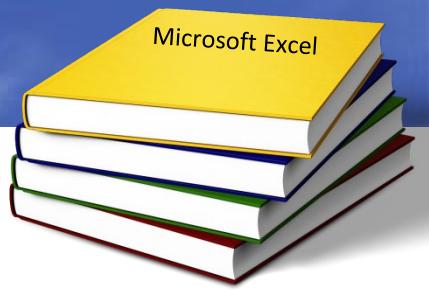
Lookup_value is the value to search for.

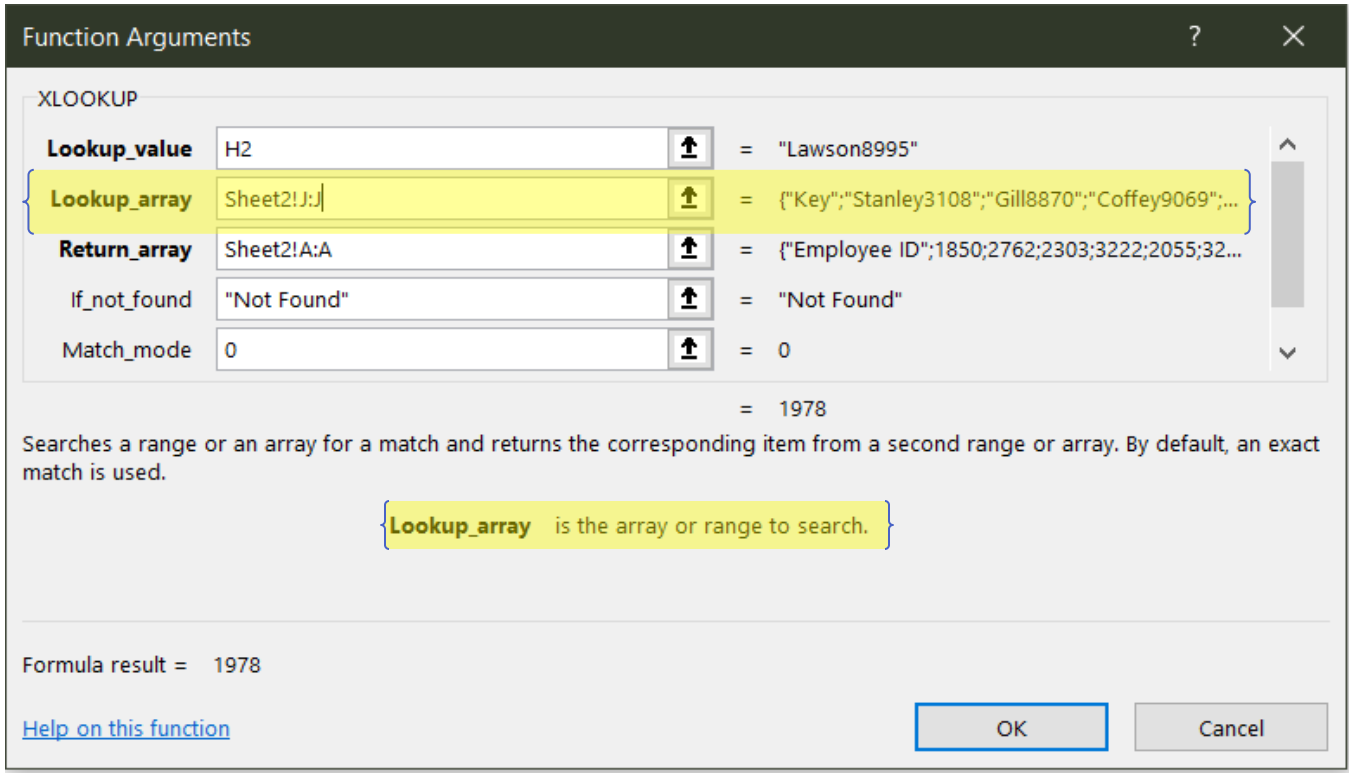
Formula result = 1978

Help on this function

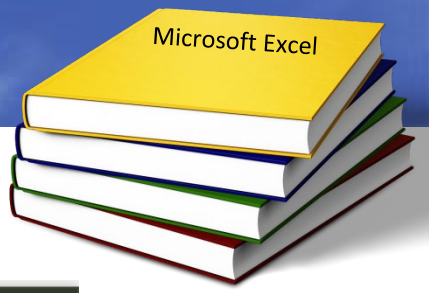
OK Cancel

XLOOKUP Function





XLOOKUP Function



Function Arguments

XLOOKUP

Lookup_value	H2	=	"Lawson8995"
Lookup_array	Sheet2!J:J	=	{"Key";"Stanley3108";"Gill8870";"Coffey9069";"C
Return_array	Sheet2!A:A	=	{"Employee ID";1850;2762;2303;3222;2055;32...
If_not_found	"Not Found"	=	"Not Found"
Match_mode	0	=	0

= 1978

Searches a range or an array for a match and returns the corresponding item from a second range or array. By default, an exact match is used.

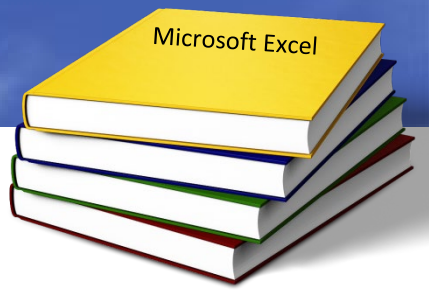
Return_array is the array or range to return.

Formula result = 1978

Help on this function

OK Cancel

XLOOKUP Function



Function Arguments

XLOOKUP

Lookup_value	H2	=	"Lawson8995"
Lookup_array	Sheet2!J:J	=	{"Key";"Stanley3108";"Gill8870";"Coffey9069";"C
Return_array	Sheet2!A:A	=	{"Employee ID";1850;2762;2303;3222;2055;3235
If_not_found	"Not Found"	=	"Not Found"
Match_mode	0	=	0

= 1978

Searches a range or an array for a match and returns the corresponding item from a second range or array. By default, an exact match is used.

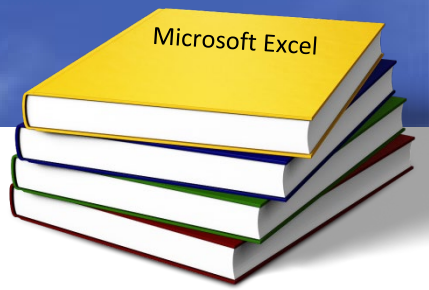
If_not_found returned if no match is found.

Formula result = 1978

Help on this function

OK Cancel

XLOOKUP Function



Function Arguments

XLOOKUP

Lookup_value	H2	=	"Lawson8995"
Lookup_array	Sheet2!J:J	=	{"Key";"Stanley3108";"Gill8870";"Coffey9069";"C
Return_array	Sheet2!A:A	=	{"Employee ID";1850;2762;2303;3222;2055;323
If_not_found	"Not Found"	=	"Not Found"
Match_mode	0	=	0

= 1978

Searches a range or an array for a match and returns the corresponding item from a second range or array. By default, an exact match is used.

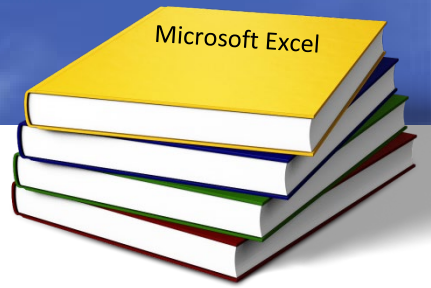
Match_mode specify how to match lookup_value against the values in lookup_array.

Formula result = 1978

Help on this function

OK Cancel

XLOOKUP Function



J2 =XLOOKUP(H2,Sheet2!K:K,Sheet2!B:B,"Not Found",0)

	A	B	D	H	J
1	Employee Name	Last Name	Last 4 SSN	Key	Employee ID
2	Mohammed Lawson	Lawson	8995	Lawson8995	1978
3	Brian Norris	Norris	7480	Norris7480	2312
4	Zach Brooks	Brooks	7097	Brooks7097	1614
5	Hashim Monroe	Monroe	9248	Monroe9248	2352
6	Cohen Mcclure	Mcclure	3387	Mcclure3387	2083
7	Oliver Solomon	Solomon	8122	Solomon8122	1775
8	Junaid Sparks	Sparks	7920	Sparks7920	1657
9	Humza Castillo	Castillo	9844	Castillo9844	3222
10	Sian Alvarez	Alvarez	5796	Alvarez5796	2439
11	Karl Kent	Kent	5132	Kent5132	Not Found
12	Hope Gill	Gill	8870	Gill8870	2762
13	Aimee Mccall	Mccall	4318	Mccall4318	3229
14	Heath Fletcher	Fletcher	5732	Fletcher5732	1616
15	James Lewis	Lewis	8590	Lewis8590	1767
16	Raymond Graham	Graham	791	Graham791	2462
17	Abubakar Andersen	Andersen	7629	Andersen7629	2030
18	Kurtis Bailey	Bailey	885	Bailey885	2673
19	Nikhil Gibbs	Gibbs	8150	Gibbs8150	2872
20	Eloise Hernandez	Hernandez	2410	Hernandez2410	2409
21	Miguel Bryant	Bryant	7671	Bryant7671	2673
22	Kelsie Mcgee	Mcgee	6412	Mcgee6412	1977
23	Tony Terry	Terry	7561	Terry7561	Not Found
24	Kaya Mcdaniel	Mcdaniel	7654	Mcdaniel7654	2180
25	Lottie Stanley	Stanley	3108	Stanley3108	1850
26	Lacie Lin	Lin	5566	Lin5566	2055
27	Frances Coffey	Coffey	9069	Coffey9069	2303
28	Lawrence Cruz	Cruz	6486	Cruz6486	2442
29	Mahdi Sanchez	Sanchez	1610	Sanchez1610	3262
30	Wayne Peters	Peters	7027	Peters7027	1842
31	Lilli Pratt	Pratt	5900	Pratt5900	2730
32	Stuart Parker	Parker	9136	Parker9136	2732
33	Nina Tapia	Tapia	2352	Tapia2352	2621
34	Scarlett Guerra	Guerra	9855	Guerra9855	1619

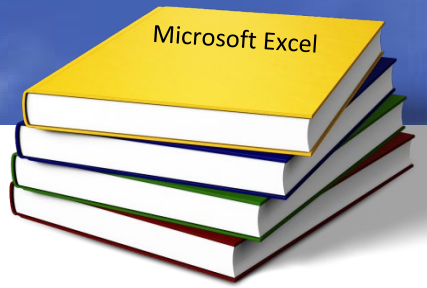
Sheet1 Sheet3 Sheet4 Sheet2

N2 =L2+M2

	A	B	C	D	E	F	G	H	I	J	K
1	Dept	Employee ID	Name	Last 4 SSN	Annual	Hourl Rate	OT Rate	Vacation Hours	Sick Hours	Last Name	Key
2	Admin	1850	Stanley, Lottie	3108	$55,035.00	$26.46	$39.69	81	148	Stanley	Stanley3108
3	Admin	2762	Gill, Hope	8870	$55,483.00	$26.67	$40.01	32	64	Gill	Gill8870
4	Admin	2303	Coffey, Frances	9069	$57,326.00	$27.56	$41.34	53	152	Coffey	Coffey9069
5	Admin	3222	Castillo, Humza	9844	$57,436.00	$27.61	$41.42	56	116	Castillo	Castillo9844
6	Admin	2055	Lin, Lacie	5566	$58,152.00	$27.96	$41.94	33	14	Lin	Lin5566
7	Admin	3235	Donnelly, Lochlan	9955	$58,702.00	$28.22	$42.33	17	124	Donnelly	Donnelly9955
8	Admin	2035	Ellis, Jaime	7247	$59,157.00	$28.44	$42.66	32	127	Ellis	Ellis7247
9	Admin	2462	Graham, Raymond	791	$59,859.00	$28.78	$43.17	15	7	Graham	Graham791
10	Engineering	2162	Hayden, Ricardo	9099	$60,667.00	$29.17	$43.76	41	161	Hayden	Hayden9099
11	Engineering	2442	Cruz, Lawrence	6486	$61,100.00	$29.38	$44.07	6	117	Cruz	Cruz6486
12	Engineering	2533	Pugh, Gail	6297	$63,834.00	$30.69	$46.04	58	192	Pugh	Pugh6297
13	Engineering	2733	Faulkner, Joyce	6414	$64,166.00	$30.85	$46.28	11	46	Faulkner	Faulkner6414
14	Engineering	1767	Lewis, James	8590	$64,239.00	$30.88	$46.32	27	4	Lewis	Lewis8590
15	Engineering	2673	Bailey, Kurtis	885	$64,380.00	$30.95	$46.43	92	151	Bailey	Bailey885
16	Billing/Collections	2872	Gibbs, Nikhil	8150	$65,188.00	$31.34	$47.01	33	129	Gibbs	Gibbs8150
17	Billing/Collections	2163	Quinn, Robert	6173	$66,443.00	$31.94	$47.91	15	151	Quinn	Quinn6173
18	Billing/Collections	2183	Berg, Haleema	7915	$67,579.00	$32.49	$48.74	40	149	Berg	Berg7915
19	Billing/Collections	2409	Hernandez, Eloise	2410	$69,937.00	$33.62	$50.43	39	83	Hernandez	Hernandez2410
20	Billing/Collections	3016	Blaese, Barnaby	8331	$70,110.00	$33.71	$50.57	48	1	Blaese	Blaese8331
21	Billing/Collections	2617	Fowle, Aidan	1066	$70,630.00	$33.96	$50.94	27	34	Fowle	Fowle1066
22	Billing/Collections	1775	Solomon, Oliver	8122	$74,578.00	$35.85	$53.78	23	114	Solomon	Solomon8122
23	Billing/Collections	1657	Sparks, Junaid	7920	$75,785.00	$36.44	$54.66	57	90	Sparks	Sparks7920
24	Billing/Collections	1977	Mcgee, Kelsie	6412	$77,001.00	$37.02	$55.53	49	92	Mcgee	Mcgee6412
25	Parks & Recreation	2621	Tapia, Nina	2352	$77,362.00	$37.19	$55.79	91	40	Tapia	Tapia2352
26	Parks & Recreation	2352	Monroe, Hashim	9248	$82,463.00	$39.65	$59.48	20	149	Monroe	Monroe9248
27	Parks & Recreation	3229	Mccall, Aimee	4318	$82,579.00	$39.70	$59.55	76	128	Mccall	Mccall4318
28	Parks & Recreation	2234	O'Connor, Raees	9620	$82,930.00	$39.87	$59.81	13	77	O'Connor	O'Connor9620
29	Parks & Recreation	1616	Fletcher, Heath	5732	$83,329.00	$40.06	$60.09	60	39	Fletcher	Fletcher5732
30	Parks & Recreation	3230	Jacobson, Jacques	5142	$84,837.00	$40.79	$61.19	4	36	Jacobson	Jacobson5142
31	Parks & Recreation	2030	Andersen, Abubakar	7629	$87,107.00	$41.88	$62.82	57	58	Andersen	Andersen7629
32	Parks & Recreation	1792	Hampton, Jonty	1446	$88,873.00	$42.73	$64.10	22	3	Hampton	Hampton1446
33	Parks & Recreation	2312	Norris, Brian	7480	$89,682.00	$43.12	$64.68	19	112	Norris	Norris7480
34	Parks & Recreation	2730	Pratt, Lilli	5900	$90,379.00	$43.45	$65.18	45	22	Pratt	Pratt5900
35	Parks & Recreation	2219	Sutherland, Bushra	4328	$90,757.00	$43.63	$65.45	8	71	Sutherland	Sutherland4328
36	Parks & Recreation	1978	Lawson, Mohammed	8995	$91,575.00	$44.03	$66.05	59	159	Lawson	Lawson8995
37	Parks & Recreation	2439	Alvarez, Sian	5796	$91,689.00	$44.08	$66.12	66	81	Alvarez	Alvarez5796
38	Parks & Recreation	2180	Mcdaniel, Kaya	7654	$91,774.00	$44.12	$66.18	30	181	Mcdaniel	Mcdaniel7654

Sheet1 Sheet3 Sheet4 Sheet2

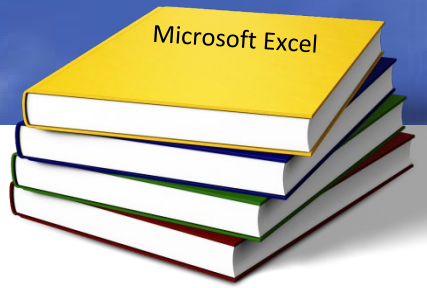
Filling in Missing Data

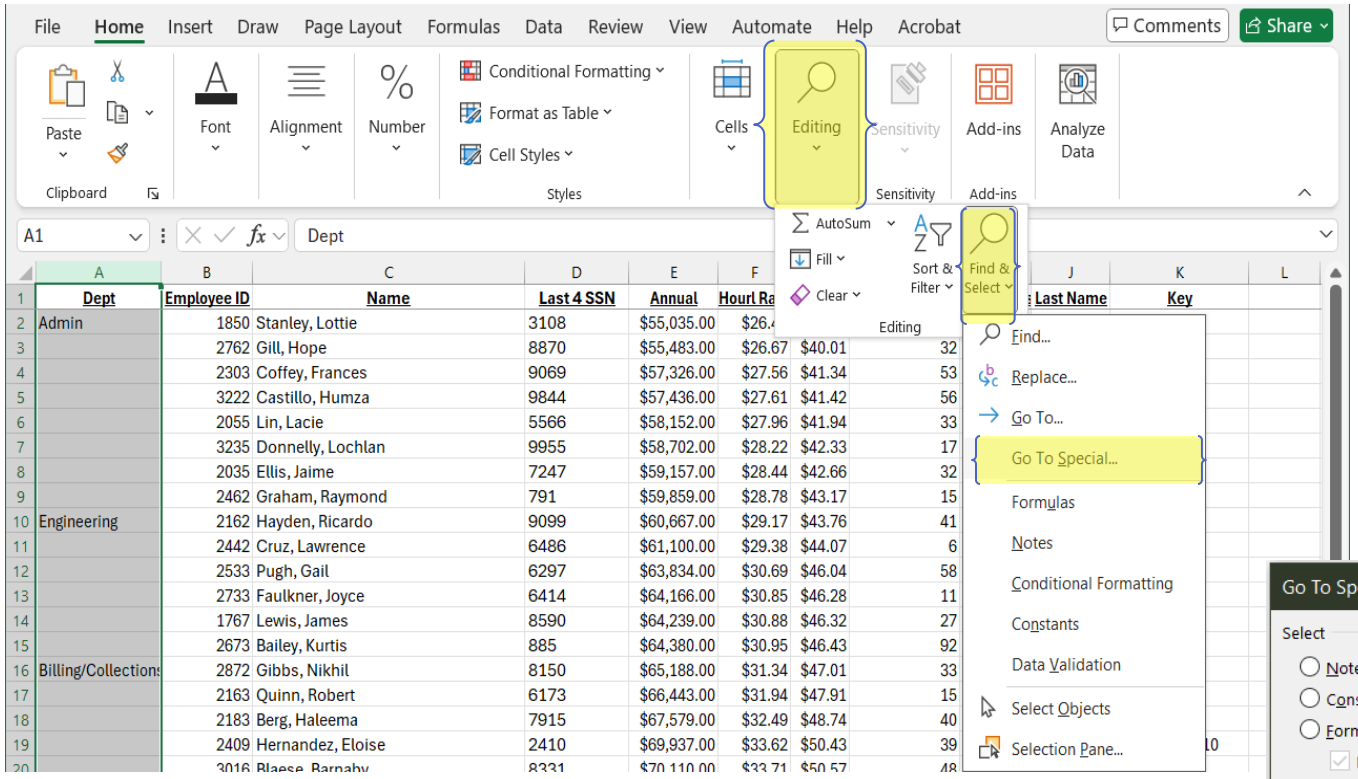


	A	B	C	D	E	F	G
1	Dept	Employee ID	Name	Last 4 SSN	Annual	Hourl Rate	OT F
2	Admin	1850	Stanley, Lottie	3108	$55,035.00	$26.46	$3
3		2762	Gill, Hope	8870	$55,483.00	$26.67	$4
4		2303	Coffey, Frances	9069	$57,326.00	$27.56	$4
5		3222	Castillo, Humza	9844	$57,436.00	$27.61	$4
6		2055	Lin, Lacie	5566	$58,152.00	$27.96	$4
7		3235	Donnelly, Lochlan	9955	$58,702.00	$28.22	$4
8		2035	Ellis, Jaime	7247	$59,157.00	$28.44	$4
9		2462	Graham, Raymond	791	$59,859.00	$28.78	$4
10	Engineering	2162	Hayden, Ricardo	9099	$60,667.00	$29.17	$4
11		2442	Cruz, Lawrence	6486	$61,100.00	$29.38	$4
12		2533	Pugh, Gail	6297	$63,834.00	$30.69	$4
13		2733	Faulkner, Joyce	6414	$64,166.00	$30.85	$4
14		1767	Lewis, James	8590	$64,239.00	$30.88	$4
15		2673	Bailey, Kurtis	885	$64,380.00	$30.95	$4
16	Billing/Collections	2872	Gibbs, Nikhil	8150	$65,188.00	$31.34	$4
17		2163	Quinn, Robert	6173	$66,443.00	$31.94	$4
18		2183	Berg, Haleema	7915	$67,579.00	$32.49	$4
19		2409	Hernandez, Eloise	2410	$69,937.00	$33.62	$5
20		3016	Blaese, Barnaby	8331	$70,110.00	$33.71	$5
21		2617	Fowle, Aidan	1066	$70,630.00	$33.96	$5
22		1775	Solomon, Oliver	8122	$74,578.00	$35.85	$5
23		1657	Sparks, Junaid	7920	$75,785.00	$36.44	$5
24		1977	Mcgee, Kelsie	6412	$77,001.00	$37.02	$5
25	Parks & Recreatio	2621	Tapia, Nina	2352	$77,362.00	$37.19	$5
26		2352	Monroe, Hashim	9248	$82,463.00	$39.65	$5
27		3229	Mccall, Aimee	4318	$82,579.00	$39.70	$5
28		2234	O'Connor, Raees	9620	$82,930.00	$39.87	$5
29		1616	Fletcher, Heath	5732	$83,329.00	$40.06	$6
30		3230	Jacobson, Jacques	5142	$84,837.00	$40.79	$6
31		2030	Andersen, Abubakar	7629	$87,107.00	$41.88	$6
32		1792	Hampton, Jonty	1446	$88,873.00	$42.73	$6
33		2312	Norris, Brian	7480	$89,682.00	$43.12	$6
34		2730	Pratt, Lilli	5900	$90,379.00	$43.45	$6
35		2219	Sutherland, Bushra	4328	$90,757.00	$43.63	$6
36		1978	Lawson, Mohammed	8995	$91,575.00	$44.03	$6
37		2439	Alvarez, Sian	5796	$91,689.00	$44.08	$6
38		2180	Mcdaniel, Kaya	7654	$91,774.00	$44.12	$6
39		1842	Peters, Wayne	7027	$93,906.00	$45.15	$6
40		1619	Guerra, Scarlett	9855	$95,232.00	$45.78	$6
41		1614	Brooks, Zach	7097	$95,769.00	$46.04	$6
42	Solid Waste	2673	Bryant, Miguel	7671	$96,444.00	$46.37	$6
43		2083	Mcclure, Cohen	3387	$97,761.00	$47.00	$7
44		1694	Blevins, Amaya	7951	$99,456.00	$47.82	$7
45		3262	Sanchez, Mahdi	1610	$99,489.00	$47.83	$7

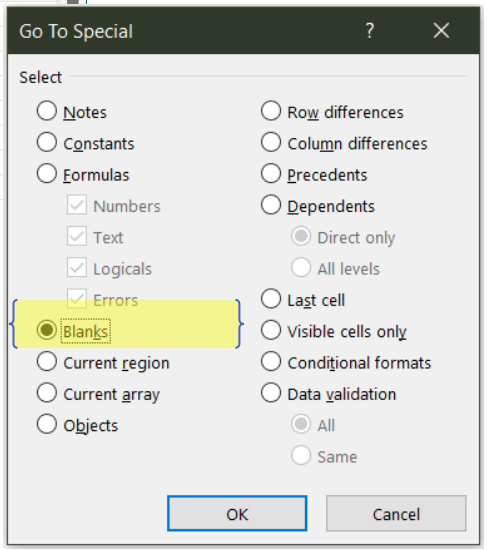
Sometimes you may find that some cells you need are empty. In the example, you can see that the department is only shown on the first employee in each department. You can easily fill in the gaps without typing in the missing departments and without doing repetitive copy/paste.

Filling in Missing Data

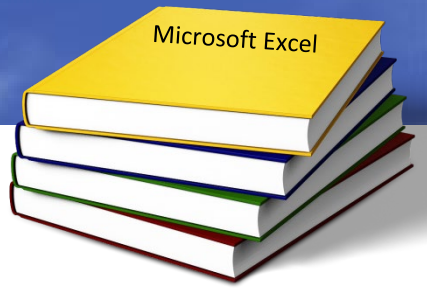




Dept	Employee ID	Name	Last 4 SSN	Annual	Hourl Ra			Last Name	Key
Admin	1850	Stanley, Lottie	3108	$55,035.00	$26.				
	2762	Gill, Hope	8870	$55,483.00	$26.67	$40.01	32		
	2303	Coffey, Frances	9069	$57,326.00	$27.56	$41.34	53		
	3222	Castillo, Humza	9844	$57,436.00	$27.61	$41.42	56		
	2055	Lin, Lacie	5566	$58,152.00	$27.96	$41.94	33		
	3235	Donnelly, Lochlan	9955	$58,702.00	$28.22	$42.33	17		
	2035	Ellis, Jaime	7247	$59,157.00	$28.44	$42.66	32		
	2462	Graham, Raymond	791	$59,859.00	$28.78	$43.17	15		
Engineering	2162	Hayden, Ricardo	9099	$60,667.00	$29.17	$43.76	41		
	2442	Cruz, Lawrence	6486	$61,100.00	$29.38	$44.07	6		
	2533	Pugh, Gail	6297	$63,834.00	$30.69	$46.04	58		
	2733	Faulkner, Joyce	6414	$64,166.00	$30.85	$46.28	11		
	1767	Lewis, James	8590	$64,239.00	$30.88	$46.32	27		
	2673	Bailey, Kurtis	885	$64,380.00	$30.95	$46.43	92		
Billing/Collections	2872	Gibbs, Nikhil	8150	$65,188.00	$31.34	$47.01	33		
	2163	Quinn, Robert	6173	$66,443.00	$31.94	$47.91	15		
	2183	Berg, Haleema	7915	$67,579.00	$32.49	$48.74	40		
	2409	Hernandez, Eloise	2410	$69,937.00	$33.62	$50.43	39		10
	3016	Blaese, Barnaby	8331	$70,110.00	$33.71	$50.57	48		



Filling in Missing Data



	A	B	C
1	Dept	Employee ID	Name
2	Admin	1850	Stanley, Lottie
3	=a2	2762	Gill, Hope
4		2303	Coffey, Frances
5		3222	Castillo, Humza
6		2055	Lin, Lacie
7		3235	Donnelly, Lochlan
8		2035	Ellis, Jaime
9		2462	Graham, Raymond
10	Engineering	2162	Hayden, Ricardo
11		2442	Cruz, La
12		2533	Pugh, G
13		2733	Faulkne
14		1767	Lewis, J
15		2673	Bailey, K
16	Billing/Collections	2872	Gibbs, N
17		2163	Quinn, R
18		2183	Berg, Ha
19		2409	Hernan
20		3016	Blaese,
21		2617	Fowle, A
22		1775	Solomo
23		1657	Sparks,
24		1977	Mcgee,
25	Parks & Recreatior	2621	Tapia, N
26		2352	Monroe
27		3229	Mccall,
28		2234	O'Conn
29		1616	Fletche
30		3230	Jacobsc
31		2030	Anderse
32		1792	Hampto
33		2312	Norris, I
34		2730	Pratt, Lilli
35		2219	Sutherland, Bushra
36		1978	Lawson, Mohammed
37		2439	Alvarez, Sian
38		2180	Mcdaniel, Kaya
39		1842	Peters, Wayne
40		1619	Guerra, Scarlett
41		1614	Brooks, Zach
42	Solid Waste	2673	Bryant, Miguel
43		2083	Mcclure, Cohen
44		1694	Blevins, Amaya

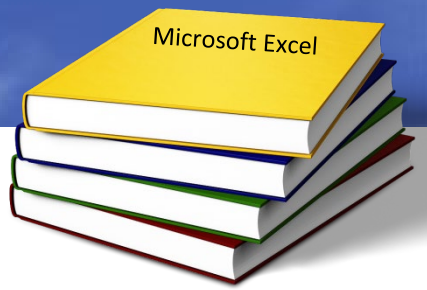
After you have selected all of the blank cells, type in Cell A3, =A2. This tells Excel that you want it to be the same as the cell above.

Instead of hitting the *Enter* key, hold the ***Ctrl* and hit *Enter*.**

	A	B	C
1	Dept	Employee ID	Name
2	Admin	1850	Stanley, Lottie
3	Admin	2762	Gill, Hope
4	Admin	2303	Coffey, Frances
5	Admin	3222	Castillo, Humza
6	Admin	2055	Lin, Lacie
7	Admin	3235	Donnelly, Lochlan
8	Admin	2035	Ellis, Jaime
9	Admin	2462	Graham, Raymond
10	Engineering	2162	Hayden, Ricardo
11	Engineering	2442	Cruz, Lawrence
12	Engineering	2533	Pugh, Gail
13	Engineering	2733	Faulkner, Joyce
14	Engineering	1767	Lewis, James
15	Engineering	2673	Bailey, Kurtis
16	Billing/Collections	2872	Gibbs, Nikhil
17	Billing/Collections	2163	Quinn, Robert
18	Billing/Collections	2183	Berg, Haleema
19	Billing/Collections	2409	Hernandez, Eloise
20	Billing/Collections	3016	Blaese, Barnaby
21	Billing/Collections	2617	Fowle, Aidan
22	Billing/Collections	1775	Solomon, Oliver
23	Billing/Collections	1657	Sparks, Junaid
24	Billing/Collections	1977	Mcgee, Kelsie
25	Parks & Recreatior	2621	Tapia, Nina
26	Parks & Recreatior	2352	Monroe, Hashim
27	Parks & Recreatior	3229	Mccall, Aimee
28	Parks & Recreatior	2234	O'Connor, Raees
29	Parks & Recreatior	1616	Fletcher, Heath
30	Parks & Recreatior	3230	Jacobson, Jacques
31	Parks & Recreatior	2030	Andersen, Abubakar
32	Parks & Recreatior	1792	Hampton, Jonty
33	Parks & Recreatior	2312	Norris, Brian
34	Parks & Recreatior	2730	Pratt, Lilli
35	Parks & Recreatior	2219	Sutherland, Bushra
36	Parks & Recreatior	1978	Lawson, Mohammed
37	Parks & Recreatior	2439	Alvarez, Sian
38	Parks & Recreatior	2180	Mcdaniel, Kaya
39	Parks & Recreatior	1842	Peters, Wayne
40	Parks & Recreatior	1619	Guerra, Scarlett
41	Parks & Recreatior	1614	Brooks, Zach
42	Solid Waste	2673	Bryant, Miguel
43	Solid Waste	2083	Mcclure, Cohen
44	Solid Waste	1694	Blevins, Amaya

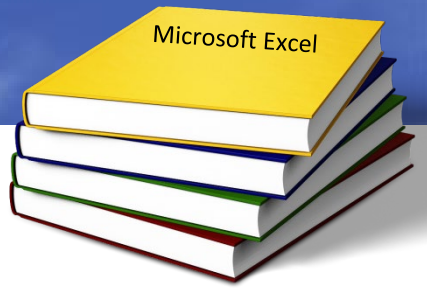
Copy/Paste Special would be a good idea at this point to break the dependency on the cells above.

Adding Subtotals/Totals

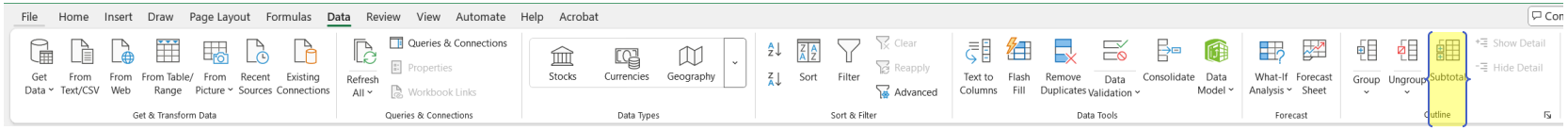


	A	B	C	E	F	H	I	L	M	N
1	Dept	Employee ID	Name	Annual	Hourl Rate	Vacation Hours	Sick Hours	Vacation Liability	Sick Liability	Total Liability
2	Admin	1850	Stanley, Lottie	$55,035.00	$26.46	81	148	$2,143.26	$3,916.08	$6,059.34
3	Admin	2762	Gill, Hope	$55,483.00	$26.67	32	64	$853.44	$1,706.88	$2,560.32
4	Admin	2303	Coffey, Frances	$57,326.00	$27.56	53	152	$1,460.68	$4,189.12	$5,649.80
5	Admin	3222	Castillo, Humza	$57,436.00	$27.61	56	116	$1,546.16	$3,202.76	$4,748.92
6	Admin	2055	Lin, Lacie	$58,152.00	$27.96	33	14	$922.68	$391.44	$1,314.12
7	Admin	3235	Donnelly, Lochlan	$58,702.00	$28.22	17	124	$479.74	$3,499.28	$3,979.02
8	Admin	2035	Ellis, Jaime	$59,157.00	$28.44	32	127	$910.08	$3,611.88	$4,521.96
9	Admin	2462	Graham, Raymond	$59,859.00	$28.78	15	7	$431.70	$201.46	$633.16
10	Engineering	2162	Hayden, Ricardo	$60,667.00	$29.17	41	161	$1,195.97	$4,696.37	$5,892.34
11	Engineering	2442	Cruz, Lawrence	$61,100.00	$29.38	6	117	$176.28	$3,437.46	$3,613.74
12	Engineering	2533	Pugh, Gail	$63,834.00	$30.69	58	192	$1,780.02	$5,892.48	$7,672.50
13	Engineering	2733	Faulkner, Joyce	$64,166.00	$30.85	11	46	$339.35	$1,419.10	$1,758.45
14	Engineering	1767	Lewis, James	$64,239.00	$30.88	27	4	$833.76	$123.52	$957.28
15	Engineering	2673	Bailey, Kurtis	$64,380.00	$30.95	92	151	$2,847.40	$4,673.45	$7,520.85
16	Billing/Collections	2872	Gibbs, Nikhil	$65,188.00	$31.34	33	129	$1,034.22	$4,042.86	$5,077.08
17	Billing/Collections	2163	Quinn, Robert	$66,443.00	$31.94	15	151	$479.10	$4,822.94	$5,302.04
18	Billing/Collections	2183	Berg, Haleema	$67,579.00	$32.49	40	149	$1,299.60	$4,841.01	$6,140.61
19	Billing/Collections	2409	Hernandez, Eloise	$69,937.00	$33.62	39	83	$1,311.18	$2,790.46	$4,101.64
20	Billing/Collections	3016	Blaese, Barnaby	$70,110.00	$33.71	48	1	$1,618.08	$33.71	$1,651.79
21	Billing/Collections	2617	Fowle, Aidan	$70,630.00	$33.96	27	34	$916.92	$1,154.64	$2,071.56
22	Billing/Collections	1775	Solomon, Oliver	$74,578.00	$35.85	23	114	$824.55	$4,086.90	$4,911.45
23	Billing/Collections	1657	Sparks, Junaid	$75,785.00	$36.44	57	90	$2,077.08	$3,279.60	$5,356.68
24	Billing/Collections	1977	Mcgee, Kelsie	$77,001.00	$37.02	49	92	$1,813.98	$3,405.84	$5,219.82
25	Parks & Recreation	2621	Tapia, Nina	$77,362.00	$37.19	91	40	$3,384.29	$1,487.60	$4,871.89
26	Parks & Recreation	2352	Monroe, Hashim	$82,463.00	$39.65	20	149	$793.00	$5,907.85	$6,700.85
27	Parks & Recreation	3229	Mccall, Aimee	$82,579.00	$39.70	76	128	$3,017.20	$5,081.60	$8,098.80
28	Parks & Recreation	2234	O'Connor, Raees	$82,930.00	$39.87	13	77	$518.31	$3,069.99	$3,588.30
29	Parks & Recreation	1616	Fletcher, Heath	$83,329.00	$40.06	60	39	$2,403.60	$1,562.34	$3,965.94
30	Parks & Recreation	3230	Jacobson, Jacques	$84,837.00	$40.79	4	36	$163.16	$1,468.44	$1,631.60
31	Parks & Recreation	2030	Andersen, Abubakar	$87,107.00	$41.88	57	58	$2,387.16	$2,429.04	$4,816.20
32	Parks & Recreation	1792	Hampton, Jonty	$88,873.00	$42.73	22	3	$940.06	$128.19	$1,068.25
33	Parks & Recreation	2312	Norris, Brian	$89,682.00	$43.12	19	112	$819.28	$4,829.44	$5,648.72
34	Parks & Recreation	2730	Pratt, Lilli	$90,379.00	$43.45	45	22	$1,955.25	$955.90	$2,911.15
35	Parks & Recreation	2219	Sutherland, Bushra	$90,757.00	$43.63	8	71	$349.04	$3,097.73	$3,446.77
36	Parks & Recreation	1978	Lawson, Mohammed	$91,575.00	$44.03	59	159	$2,597.77	$7,000.77	$9,598.54
37	Parks & Recreation	2439	Alvarez, Sian	$91,689.00	$44.08	66	81	$2,909.28	$3,570.48	$6,479.76
38	Parks & Recreation	2180	Mcdaniel, Kaya	$91,774.00	$44.12	30	181	$1,323.60	$7,985.72	$9,309.32
39	Parks & Recreation	1842	Peters, Wayne	$93,906.00	$45.15	48	188	$2,167.20	$8,488.20	$10,655.40
40	Parks & Recreation	1619	Guerra, Scarlett	$95,232.00	$45.78	63	114	$2,884.14	$5,218.92	$8,103.06
41	Parks & Recreation	1614	Brooks, Zach	$95,769.00	$46.04	9	40	$414.36	$1,841.60	$2,255.96
42	Solid Waste	2673	Bryant, Miguel	$96,444.00	$46.37	30	181	$1,391.10	$8,392.97	$9,784.07

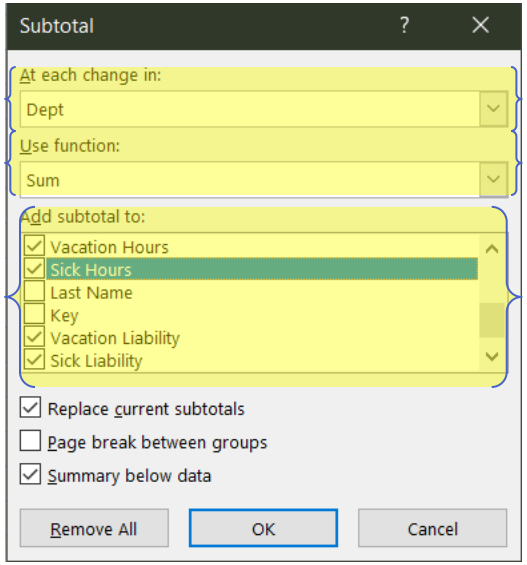
Adding Subtotals/Totals



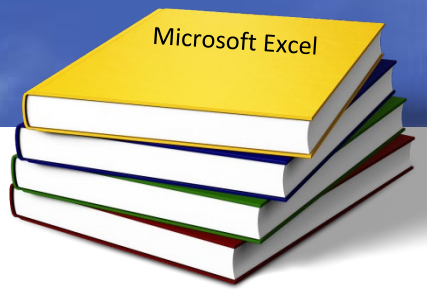
1. First sort by the column you want your totals based on. In our example we want totals for each dept.
2. Select all the data you want included in the totals. I selected my entire worksheet.
3. Click on Data in the ribbon bar and then choose subtotals.



1. At each change in: means you want a total when this field changes.
2. Use function: sum to add, count, etc.
3. Add subtotal to: Select the columns you want subtotals for.

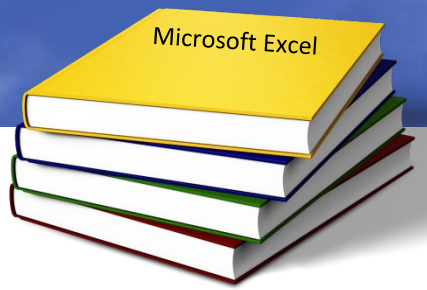


Adding Subtotals/Totals



	A	B	C	E	F	H	I	L	M	N
1	Dept	Employee ID	Name	Annual	Hourl Rate	Vacation Hours	Sick Hours	Vacation Liability	Sick Liability	Total Liability
2	Admin	1850	Stanley, Lottie	$55,035.00	$26.46	81	148	$2,143.26	$3,916.08	$6,059.34
3	Admin	2762	Gill, Hope	$55,483.00	$26.67	32	64	$853.44	$1,706.88	$2,560.32
4	Admin	2303	Coffey, Frances	$57,326.00	$27.56	53	152	$1,460.68	$4,189.12	$5,649.80
5	Admin	3222	Castillo, Humza	$57,436.00	$27.61	56	116	$1,546.16	$3,202.76	$4,748.92
6	Admin	2055	Lin, Lacie	$58,152.00	$27.96	33	14	$922.68	$391.44	$1,314.12
7	Admin	3235	Donnelly, Lochlan	$58,702.00	$28.22	17	124	$479.74	$3,499.28	$3,979.02
8	Admin	2035	Ellis, Jaime	$59,157.00	$28.44	32	127	$910.08	$3,611.88	$4,521.96
9	Admin	2462	Graham, Raymond	$59,859.00	$28.78	15	7	$431.70	$201.46	$633.16
10	**Admin Total**					319	752	$8,747.74	$20,718.90	$29,466.64
11	Engineering	2162	Hayden, Ricardo	$60,667.00	$29.17	41	161	$1,195.97	$4,696.37	$5,892.34
12	Engineering	2442	Cruz, Lawrence	$61,100.00	$29.38	6	117	$176.28	$3,437.46	$3,613.74
13	Engineering	2533	Pugh, Gail	$63,834.00	$30.69	58	192	$1,780.02	$5,892.48	$7,672.50
14	Engineering	2733	Faulkner, Joyce	$64,166.00	$30.85	11	46	$339.35	$1,419.10	$1,758.45
15	Engineering	1767	Lewis, James	$64,239.00	$30.88	27	4	$833.76	$123.52	$957.28
16	Engineering	2673	Bailey, Kurtis	$64,380.00	$30.95	92	151	$2,847.40	$4,673.45	$7,520.85
17	**Engineering Total**					235	671	$7,172.78	$20,242.38	$27,415.16
18	Billing/Collections	2872	Gibbs, Nikhil	$65,188.00	$31.34	33	129	$1,034.22	$4,042.86	$5,077.08
19	Billing/Collections	2163	Quinn, Robert	$66,443.00	$31.94	15	151	$479.10	$4,822.94	$5,302.04
20	Billing/Collections	2183	Berg, Haleema	$67,579.00	$32.49	40	149	$1,299.60	$4,841.01	$6,140.61
21	Billing/Collections	2409	Hernandez, Eloise	$69,937.00	$33.62	39	83	$1,311.18	$2,790.46	$4,101.64
22	Billing/Collections	3016	Blaese, Barnaby	$70,110.00	$33.71	48	1	$1,618.08	$33.71	$1,651.79
23	Billing/Collections	2617	Fowle, Aidan	$70,630.00	$33.96	27	34	$916.92	$1,154.64	$2,071.56
24	Billing/Collections	1775	Solomon, Oliver	$74,578.00	$35.85	23	114	$824.55	$4,086.90	$4,911.45
25	Billing/Collections	1657	Sparks, Junaid	$75,785.00	$36.44	57	90	$2,077.08	$3,279.60	$5,356.68
26	Billing/Collections	1977	Mcgee, Kelsie	$77,001.00	$37.02	49	92	$1,813.98	$3,405.84	$5,219.82
27	**Billing/Collections Total**					331	843	$11,374.71	$28,457.96	$39,832.67
28	Parks & Recreation	2621	Tapia, Nina	$77,362.00	$37.19	91	40	$3,384.29	$1,487.60	$4,871.89
29	Parks & Recreation	2352	Monroe, Hashim	$82,463.00	$39.65	20	149	$793.00	$5,907.85	$6,700.85
30	Parks & Recreation	3229	Mccall, Aimee	$82,579.00	$39.70	76	128	$3,017.20	$5,081.60	$8,098.80
31	Parks & Recreation	2234	O'Connor, Raees	$82,930.00	$39.87	13	77	$518.31	$3,069.99	$3,588.30
32	Parks & Recreation	1616	Fletcher, Heath	$83,329.00	$40.06	60	39	$2,403.60	$1,562.34	$3,965.94
33	Parks & Recreation	3230	Jacobson, Jacques	$84,837.00	$40.79	4	36	$163.16	$1,468.44	$1,631.60
34	Parks & Recreation	2030	Andersen, Abubakar	$87,107.00	$41.88	57	58	$2,387.16	$2,429.04	$4,816.20
35	Parks & Recreation	1792	Hampton, Jonty	$88,873.00	$42.73	22	3	$940.06	$128.19	$1,068.25
36	Parks & Recreation	2312	Norris, Brian	$89,682.00	$43.12	19	112	$819.28	$4,829.44	$5,648.72
37	Parks & Recreation	2730	Pratt, Lilli	$90,379.00	$43.45	45	22	$1,955.25	$955.90	$2,911.15
38	Parks & Recreation	2219	Sutherland, Bushra	$90,757.00	$43.63	8	71	$349.04	$3,097.73	$3,446.77
39	Parks & Recreation	1978	Lawson, Mohammed	$91,575.00	$44.03	59	159	$2,597.77	$7,000.77	$9,598.54
40	Parks & Recreation	2439	Alvarez, Sian	$91,689.00	$44.08	66	81	$2,909.28	$3,570.48	$6,479.76
41	Parks & Recreation	2180	Mcdaniel, Kaya	$91,774.00	$44.12	30	181	$1,323.60	$7,985.72	$9,309.32
42	Parks & Recreation	1842	Peters, Wayne	$93,906.00	$45.15	48	188	$2,167.20	$8,488.20	$10,655.40
43	Parks & Recreation	1619	Guerra, Scarlett	$95,232.00	$45.78	63	114	$2,884.14	$5,218.92	$8,103.06
44	Parks & Recreation	1614	Brooks, Zach	$95,769.00	$46.04	9	40	$414.36	$1,841.60	$2,255.96
45	**Parks & Recreation Total**					690	1498	$29,026.70	$64,123.81	$93,150.51

Adding Subtotals/Totals



	A	B	C	E	F	H	I	L	M	N
1	Dept	Employee ID	Name	Annual	Hourl Rate	Vacation Hours	Sick Hours	Vacation Liability	Sick Liability	Total Liability
10	Admin Total					319	752	$8,747.74	$20,718.90	$29,466.64
17	Engineering Total					235	671	$7,172.78	$20,242.38	$27,415.16
27	Billing/Collections Total					331	843	$11,374.71	$28,457.96	$39,832.67
45	Parks & Recreation Total					690	1498	$29,026.70	$64,123.81	$93,150.51
56	Solid Waste Total					437	506	$21,032.21	$24,214.21	$45,246.42
57	Grand Total					2012	4270	$77,354.14	$157,757.26	$235,111.40

1. If you select 2 you see just the sub totals and grand total.
2. Selecting 1 will just show the grand total.

The subtotal lines have the department field in bold by default. If you want to make the actual totals bold you can do that without having to touch every single total line.

Here's how:

1. Use the Go To tool we used earlier and this time select "visible" cells instead of blank cells.
2. Click the icon for Bold.

	A	B	C	E	F	H	I	L	M	N
1	Dept	Employee ID	Name	Annual	Hourl Rate	Vacation Hours	Sick Hours	Vacation Liability	Sick Liability	Total Liability
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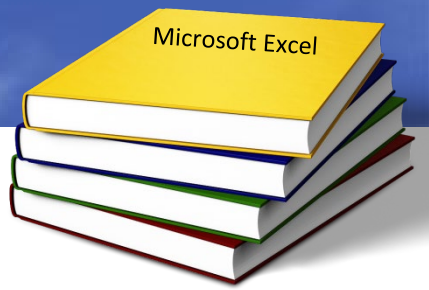
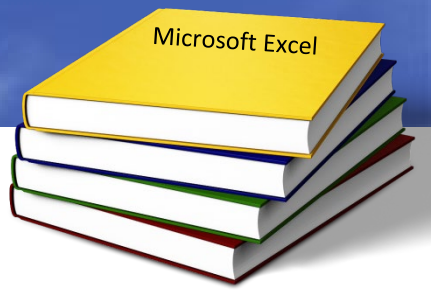
Pivot Tables



Apivot table is a tool that summarizes and organizes data in a spreadsheet, allowing users to analyze patterns and trends. Pivot tables can be used to:

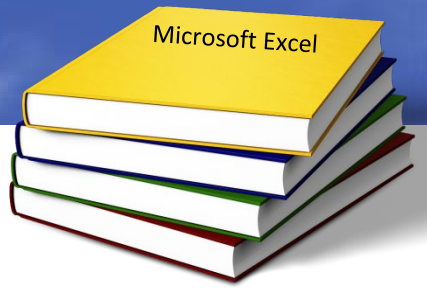
- Analyze data: Pivot tables can help users answer questions about their data by analyzing numerical data in detail.
- Summarize data: Pivot tables can automatically aggregate, sort, count, or average data.
- Identify patterns: Pivot tables can help users identify interesting patterns and trends in their data.
- Filter data: Pivot tables allow users to filter, sort, group, and conditionally format data to focus on the information they want.

Pivot Tables



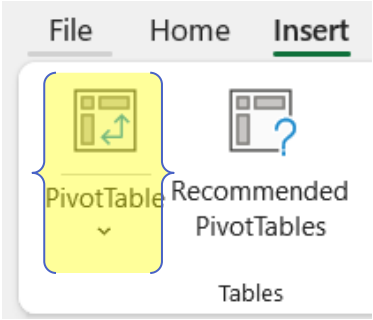
- Create custom calculations: Pivot tables allow users to create custom calculations and formulas.
- Expand and collapse data: Pivot tables allow users to expand and collapse levels of data to focus on specific areas of interest.
- Move rows and columns: Pivot tables allow users to move rows to columns or columns to rows to see different summaries of the source data.

Pivot Tables

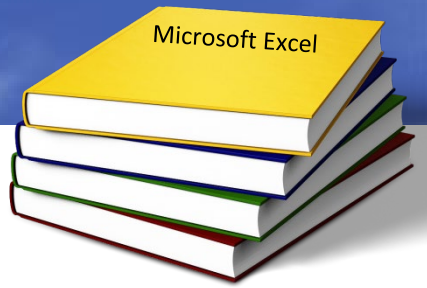


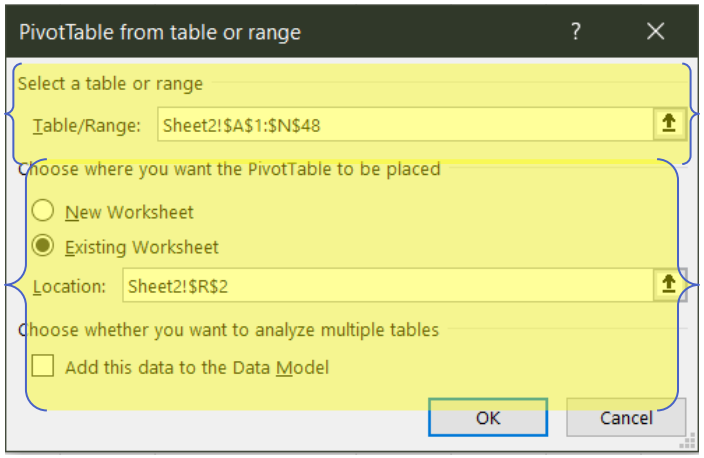
	A	B	C	E	F	H	I	L	M	N
1	Dept	Employee ID	Name	Annual	Hourl Rate	Vacation Hours	Sick Hours	Vacation Liability	Sick Liability	Total Liability
2	Admin	1850	Stanley, Lottie	$55,035.00	$26.46	81	148	$2,143.26	$3,916.08	$6,059.34
3	Admin	2762	Gill, Hope	$55,483.00	$26.67	32	64	$853.44	$1,706.88	$2,560.32
4	Admin	2303	Coffey, Frances	$57,326.00	$27.56	53	152	$1,460.68	$4,189.12	$5,649.80
5	Admin	3222	Castillo, Humza	$57,436.00	$27.61	56	116	$1,546.16	$3,202.76	$4,748.92
6	Admin	2055	Lin, Lacie	$58,152.00	$27.96	33	14	$922.68	$391.44	$1,314.12
7	Admin	3235	Donnelly, Lochlan	$58,702.00	$28.22	17	124	$479.74	$3,499.28	$3,979.02
8	Admin	2035	Ellis, Jaime	$59,157.00	$28.44	32	127	$910.08	$3,611.88	$4,521.96
9	Admin	2462	Graham, Raymond	$59,859.00	$28.78	15	7	$431.70	$201.46	$633.16
10	Engineering	2162	Hayden, Ricardo	$60,667.00	$29.17	41	161	$1,195.97	$4,696.37	$5,892.34
11	Engineering	2442	Cruz, Lawrence	$61,100.00	$29.38	6	117	$176.28	$3,437.46	$3,613.74
12	Engineering	2533	Pugh, Gail	$63,834.00	$30.69	58	192	$1,780.02	$5,892.48	$7,672.50
13	Engineering	2733	Faulkner, Joyce	$64,166.00	$30.85	11	46	$339.35	$1,419.10	$1,758.45
14	Engineering	1767	Lewis, James	$64,239.00	$30.88	27	4	$833.76	$123.52	$957.28
15	Engineering	2673	Bailey, Kurtis	$64,380.00	$30.95	92	151	$2,847.40	$4,673.45	$7,520.85
16	Billing/Collections	2872	Gibbs, Nikhil	$65,188.00	$31.34	33	129	$1,034.22	$4,042.86	$5,077.08
17	Billing/Collections	2163	Quinn, Robert	$66,443.00	$31.94	15	151	$479.10	$4,822.94	$5,302.04
18	Billing/Collections	2183	Berg, Haleema	$67,579.00	$32.49	40	149	$1,299.60	$4,841.01	$6,140.61
19	Billing/Collections	2409	Hernandez, Eloise	$69,937.00	$33.62	39	83	$1,311.18	$2,790.46	$4,101.64
20	Billing/Collections	3016	Blaese, Barnaby	$70,110.00	$33.71	48	1	$1,618.08	$33.71	$1,651.79
21	Billing/Collections	2617	Fowle, Aidan	$70,630.00	$33.96	27	34	$916.92	$1,154.64	$2,071.56
22	Billing/Collections	1775	Solomon, Oliver	$74,578.00	$35.85	23	114	$824.55	$4,086.90	$4,911.45
23	Billing/Collections	1657	Sparks, Junaid	$75,785.00	$36.44	57	90	$2,077.08	$3,279.60	$5,356.68
24	Billing/Collections	1977	Mcgee, Kelsie	$77,001.00	$37.02	49	92	$1,813.98	$3,405.84	$5,219.82
25	Parks & Recreation	2621	Tapia, Nina	$77,362.00	$37.19	91	40	$3,384.29	$1,487.60	$4,871.89
26	Parks & Recreation	2352	Monroe, Hashim	$82,463.00	$39.65	20	149	$793.00	$5,907.85	$6,700.85
27	Parks & Recreation	3229	Mccall, Aimee	$82,579.00	$39.70	76	128	$3,017.20	$5,081.60	$8,098.80
28	Parks & Recreation	2234	O'Connor, Raees	$82,930.00	$39.87	13	77	$518.31	$3,069.99	$3,588.30
29	Parks & Recreation	1616	Fletcher, Heath	$83,329.00	$40.06	60	39	$2,403.60	$1,562.34	$3,965.94
30	Parks & Recreation	3230	Jacobson, Jacques	$84,837.00	$40.79	4	36	$163.16	$1,468.44	$1,631.60

1. Select the data you want to analyze using a pivot table.
2. Click on Insert on the ribbon bar and choose Pivot Table.

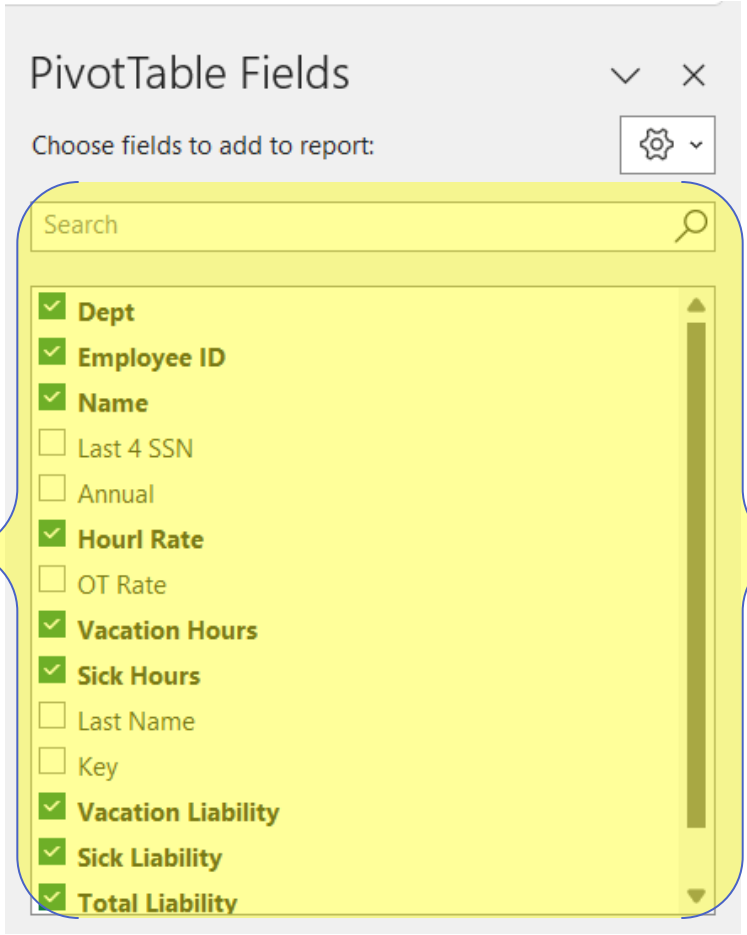


Pivot Tables

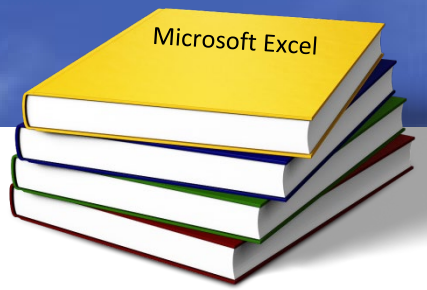




1. Table/range is the data you selected to include in the pivot table.
2. You can choose to have the pivot table in a new worksheet or added to the existing worksheet. If you choose existing, you have to tell the row and column you want it to start in.
3. Then select which columns you want to show in the table.



Pivot Tables

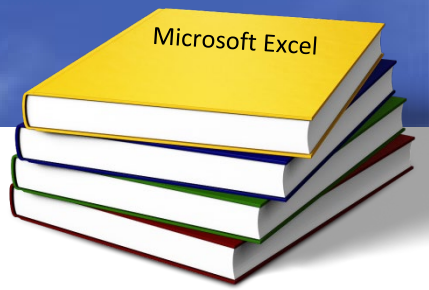


Detailed view of pivot table we created.

R	S	T	U	V	W	X	Y
Row Labels	Sum of Employee ID	Sum of Hourl Rate	Sum of Vacation Hours	Sum of Sick Hours	Sum of Vacation Liability	Sum of Sick Liability	Sum of Total Liability
Admin	**19924**	**221.7**	**319**	**752**	**8747.74**	**20718.9**	**29466.64**
Castillo, Humza	3222	27.61	56	116	1546.16	3202.76	4748.92
Coffey, Frances	2303	27.56	53	152	1460.68	4189.12	5649.8
Donnelly, Lochlan	3235	28.22	17	124	479.74	3499.28	3979.02
Ellis, Jaime	2035	28.44	32	127	910.08	3611.88	4521.96
Gill, Hope	2762	26.67	32	64	853.44	1706.88	2560.32
Graham, Raymond	2462	28.78	15	7	431.7	201.46	633.16
Lin, Lacie	2055	27.96	33	14	922.68	391.44	1314.12
Stanley, Lottie	1850	26.46	81	148	2143.26	3916.08	6059.3
Billing/Collections	**20669**	**306.37**	**331**	**843**	**11374.71**	**28457.96**	**3983**
Berg, Haleema	2183	32.49	40	149	1299.6	4841.01	614
Blaese, Barnaby	3016	33.71	48	1	1618.08	33.71	1651.
Fowle, Aidan	2617	33.96	27	34	916.92	1154.64	2071.
Gibbs, Nikhil	2872	31.34	33	129	1034.22	4042.86	5077.
Hernandez, Eloise	2409	33.62	39	83	1311.18	2790.46	4101.6
Mcgee, Kelsie	1977	37.02	49	92	1813.98	3405.84	5219.82
Quinn, Robert	2163	31.94	15	151	479.1	4822.94	5302.04
Solomon, Oliver	1775	35.85	23	114	824.55	4086.9	4911.45
Sparks, Junaid	1657	36.44	57	90	2077.08	3279.6	5356.68
Engineering	**14310**	**181.92**	**235**	**671**	**7172.78**	**20242.38**	**27415.16**
Bailey, Kurtis	2673	30.95	92	151	2847.4	4673.45	7520.85
Cruz, Lawrence	2442	29.38	6	117	176.28	3437.46	3613.74
Faulkner, Joyce	2733	30.85	11	46	339.35	1419.1	1758.45
Hayden, Ricardo	2162	29.17	41	161	1195.97	4696.37	5892.34
Lewis, James	1767	30.88	27	4	833.76	123.52	957.28
Pugh, Gail	2533	30.69	58	192	1780.02	5892.48	7672.5
Parks & Recreation	**38037**	**721.27**	**690**	**1498**	**29026.7**	**64123.81**	**93150.51**
Alvarez, Sian	2439	44.08	66	81	2909.28	3570.48	6479.76
Andersen, Abubakar	2030	41.88	57	58	2387.16	2429.04	4816.2
Brooks, Zach	1614	46.04	9	40	414.36	1841.6	2255.96
Fletcher, Heath	1616	40.06	60	39	2403.6	1562.34	3965.94
Guerra, Scarlett	1619	45.78	63	114	2884.14	5218.92	8103.06
Hampton, Jonty	1792	42.73	22	3	940.06	128.19	1068.25
Jacobson, Jacques	3230	40.79	4	36	163.16	1468.44	1631.6
Lawson, Mohammed	1978	44.03	59	159	2597.77	7000.77	9598.54
Mccall, Aimee	3229	39.7	76	128	3017.2	5081.6	8098.8
Mcdaniel, Kaya	2180	44.12	30	181	1323.6	7985.72	9309.32
Monroe, Hashim	2352	39.65	20	149	793	5907.85	6700.85
Norris, Brian	2312	43.12	19	112	819.28	4829.44	5648.72
O'Connor, Raees	2234	39.87	13	77	518.31	3069.99	3588.3
Peters, Wayne	1842	45.15	48	188	2167.2	8488.2	10655.4
Pratt, Lilli	2730	43.45	45	22	1955.25	955.9	2911.15
Sutherland, Bushra	2219	43.63	8	71	349.04	3097.73	3446.77
Tapia, Nina	2621	37.19	91	40	3384.29	1487.6	4871.89

You can summarize by clicking on the row heading for each department.

UPPER Function



{ StaNleY, lOttiE } Q2)

Function Arguments

UPPER

Text AQ2 = "StaNleY, lOttiE"

= "STANLEY, LOTTIE"

Converts a text string to all uppercase letters.

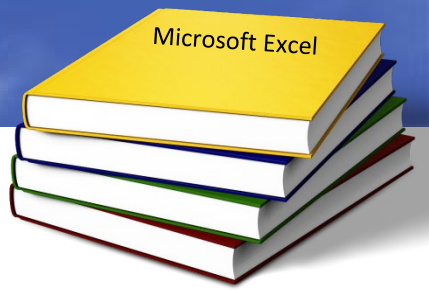
Text is the text you want converted to uppercase, a reference or a text string.

Formula result = STANLEY, LOTTIE

Help on this function

OK Cancel

LOWER Function



StaNleY, lOttiE AQ2)

Function Arguments

LOWER

Text AQ2 = "StaNleY, lOttiE"

= "stanley, lottie"

Converts all letters in a text string to lowercase.

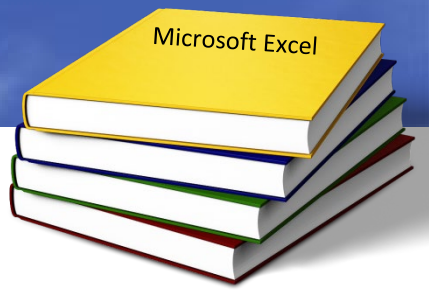
Text is the text you want to convert to lowercase. Characters in Text that are not letters are not changed.

Formula result = stanley, lottie

Help on this function

OK Cancel

PROPER Function



StaNleY, lOttiE (AQ2)

Function Arguments

PROPER

Text AQ2 = "StaNleY, lOttiE"

= "Stanley, Lottie"

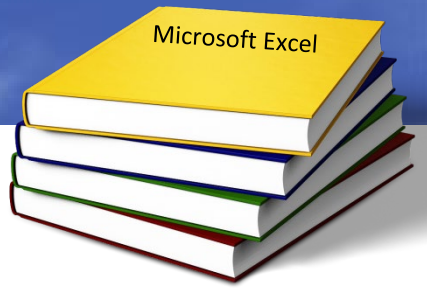
Converts a text string to proper case; the first letter in each word to uppercase, and all other letters to lowercase.

Text is text enclosed in quotation marks, a formula that returns text, or a reference to a cell containing text to partially capitalize.

Formula result = Stanley, Lottie

Help on this function

OK Cancel



Guess what folks…

We’re DONE!