

# EXCEL FOR ANALYTICS

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## THE ULTIMATE GUIDE

ALL SHORTCUTS + FUNCTIONS  
FEATURED IN THE PRACTICUM FOR

 *ANALYTICS  
CAREER  
ACCESS*

FROM  
 **TMB** ANALYTICS

# SHORTCUTS

## GENERALLY HELPFUL

**Ctrl** + **S**

SAVE ACTIVE FILE

**F2**

ACTIVATE CELL  
EDITING MODE

**F4**

TOGGLE ABSOLUTE/  
RELATIVE REFERENCES

**Ctrl** + **C**

COPY  
SELECTION

**Ctrl** + **V**

PASTE  
SELECTION

**Alt** + **E** **S** **V**

PASTE SPECIAL  
VALUES

**Alt** + **E** **S** **T**

PASTE SPECIAL  
FORMATS

**Ctrl** + **-**

DELETE  
SELECTION

**Alt** + **A** **E** **F**

ACTIVATE ALL  
CELLS IN RANGE

**Alt** + **N** **T**

CREATE  
DATA TABLE

**Ctrl** + **T**

CREATE  
DATA TABLE

**Alt** + **A** **C**

CLEAR ALL FILTERS  
FROM DATA SET

**Alt** + 

ACTIVATE FILTER  
DROP DOWN MENU

**Alt** + **J** **T** **A**

RENAME  
DATA TABLE

**Alt** + **A** **M**

REMOVE  
DUPLICATES

**WIN** + 

SPLIT SCREEN LEFT

**Alt** + **Enter**

ADD NEW LINE  
TO FORMULA

**Alt** + **H** **O** **R**

RENAME ACTIVE TAB

**Alt** + **I** **C**

INSERT COLUMN

**Alt** + **=**

QUICK SUM  
FUNCTION

**Alt** + **I** **R**

INSERT ROW

*REPETITION IS THE KEY TO RETENTION*



# SHORTCUTS

## SELECTION + NAVIGATION

**Ctrl** + **A**

SELECT ALL

**Ctrl** + **Space**

SELECT COLUMN

**Shift** + **Space**

SELECT ROW

**Ctrl** + **Shift** + **End**

SELECT TO END  
OF DATA SET

**Ctrl** + **PgDn**

MOVE TO TAB RIGHT

**Ctrl** + **PgUp**

MOVE TO TAB LEFT

**Ctrl** + 

JUMP TO BOTTOM OF  
CONTIGUOUS CELLS

**Alt** + **H** **F** **D**

TOGGLE GO TO  
SPECIAL MENU

**Alt** + **H** **F** **D** + **S** **K**

GO TO SPECIAL MENU  
SELECT BLANKS

*REPETITION IS THE KEY TO RETENTION*

# SHORTCUTS

## FORMATTING

**Alt+HFN**

OPEN FORMAT  
CELLS MENU

**Alt+HBP**

ADD TOP BORDER  
TO ACTIVE CELLS

**Alt+EST**

PASTE SPECIAL  
FORMATS

**Alt+HAN**

CONVERT  
TO USD \$

**Alt+HNS**

CONVERT TO  
SHORT DATE

**Alt+HP**

FORMAT CELL  
AS PERCENTAGE

**Alt+HAL**

LEFT ALIGN  
CELL CONTENTS

**Alt+HAC**

CENTER ALIGN  
CELL CONTENTS

**Alt+HAR**

RIGHT ALIGN  
CELL CONTENTS

**Alt+HO**

ADD ONE  
DECIMAL DIGIT

**Alt+HAM**

MIDDLE ALIGN  
CELL CONTENTS

**Alt+H9**

REMOVE ONE  
DECIMAL DIGIT

**Alt+H6**

INDENT  
CELL CONTENTS

**Alt+HOI**

AUTOFIT  
CELL WIDTHS

**Alt+H5**

UN-INDENT  
CELL CONTENTS

**Alt+HOUR**

HIDE SELECTED ROWS

*REPETITION IS THE KEY TO RETENTION*



# FUNCTIONS

## CLEANING

WOR... ▾

⋮

✖ ✔ *fx*

=TRIM(A3)

	A	B	C
1	Name	Trimmed	
2	Frank	Frank	
3	Isabel	=TRIM(A3)	
4		TRIM(text)	

**TRIM:** Used in data cleaning to remove leading or trailing blanks that are often difficult to see in the source data

**Syntax:**  
TRIM(Cell Reference)

WORKDAY

⌵

⋮

✖

✔

*f<sub>x</sub>*

=LEFT(A3,3)

	A	B	C
1	Phone Number	Area Code	
2	999-999-9999	999	
3	999-999-9998	=LEFT(A3,3)	
4		LEFT(text, [num_chars])	
5			

**LEFT:** Used to grab some number of characters starting from the left of the cell contents

**Syntax:**  
LEFT(Cell Reference,char num)

WORKDAY

⌵

⋮

✗

✓

*fx*

=RIGHT(A3,8)

	A	B	C
1	Phone Number	No Area Code	
2	999-999-9999	999-9999	
3	999-999-9998	=RIGHT(A3,8)	
4		RIGHT(text, [num_chars])	
5			

**RIGHT:** Used to grab some number of characters starting from the right of the cell contents

**Syntax:**  
RIGHT(Cell Ref,char num)

WORKDAY	✖	✔	<i>fx</i>	=MID(A3,2,3)
	A	B	C	D
1	Phone Number	Area Code		
2	(999) 999-9999	999		
3	(999) 999-9998	=MID(A3,2,3)		
4		MID(text, start_num, num_chars)		
5				

**MID:** Used to grab some number of characters starting from a designated count from the left of a cell's contents

**Syntax:**  
MID(Cell Ref,Start Num, Char Num)

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# FUNCTIONS

## MANIPULATING

=YEAR(C2)				
	C	D	E	
	les	Date	Year	
10	1/31/2021	=YEAR(C2)		
20	1/31/2021	YEAR(serial_number)		

**YEAR:** Used to extract the year from a date. Similar to MONTH, DAY, and other related functions

**Syntax:**  
YEAR(Date Reference)

=EOMONTH(C4,0)					
	A	B	C	D	E
	Name	Sales	Date	End of Month	
2	Jim	10	9/18/2021	9/30/2021	
3	Jane	20	1/15/2021	1/31/2021	
4	Jon	15	2/1/2021	=EOMONTH(C4,0)	
5	Julia	25	3/5/2021	EOMONTH(start_date, months)	
6	Jorge	5	12/22/2021	12/31/2021	
7	Jane	15	11/14/2021	11/30/2021	
8	Jon	25	6/2/2021	6/30/2021	

**EOMONTH:** Used to derive the last day in a month determined by a dated cell and a specific number of months to roll forward.

**Syntax:**  
EOMONTH(Date Cell, Months)

=TEXT(E4,"MMMM")				
C	D	E	F	G
Last	Email	Join Date	Join Month	
Jones	JimJones@wadget.co	2/23/2021	February	
Jolly	JaneJolly@wadget.co	4/15/2021	April	
Jacob	JonJacob@wadget.co	6/17/2021	=TEXT(E4,"MMMM")	
Jinsing	JuliaJinsing@wadget.co	9/5/2021	TEXT(value, format_text)	
Jude	JorgeJude@wadget.co	11/19/2021	November	

**TEXT:** Incredibly useful function for a variety of things, namely in extracting specialized formats from cells.

**Syntax:**  
TEXT(Cell Reference, Format)

=B3&C3&"@wadget.co"				
	A	B	C	D
	ID	First	Last	Email
2	JJ12345	Jim	Jones	JimJones@wadget.co
3	JJ23456	Jane	Jolly	=B3&C3&"@wadget.co"
4	JJ34567	Jon	Jacob	JonJacob@wadget.co
5	JJ45678	Julia	Jinsing	JuliaJinsing@wadget.co
6	JJ56789	Jorge	Jude	JorgeJude@wadget.co

**Not CONCATENATE:** Instead of the concatenate function, use the ampersand (&) to join strings and cell contents to create something new.

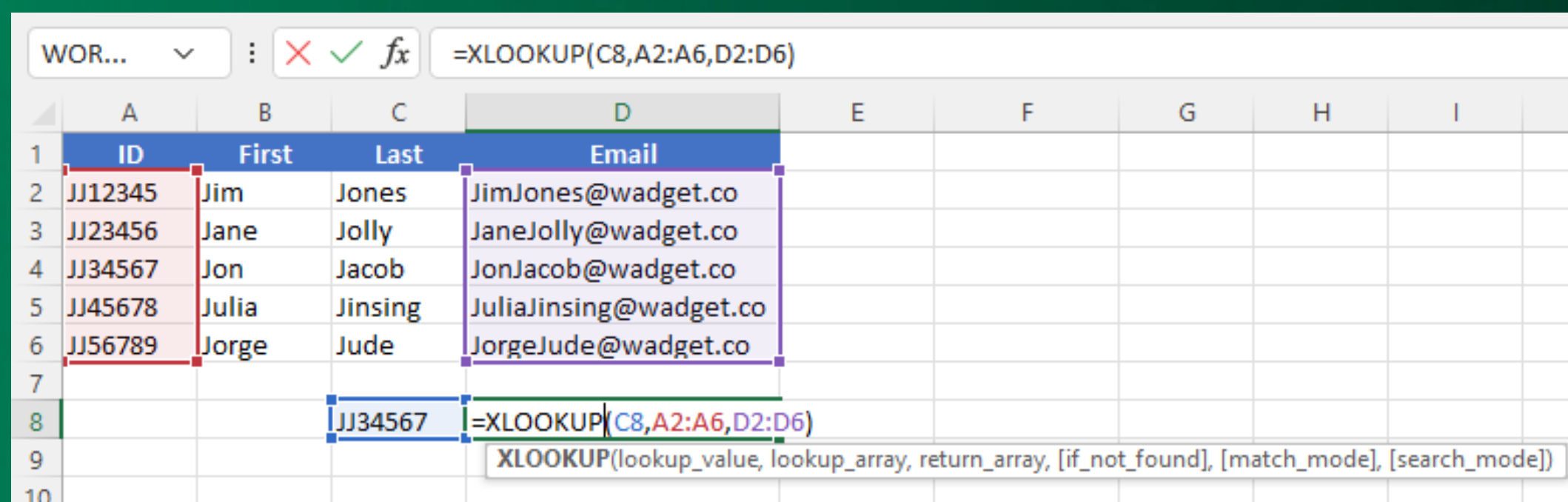
**Syntax:**  
Cell/"Text 1"&Cell/"Text2"

REPETITION IS THE KEY TO RETENTION



# FUNCTIONS

## LOOKUPS



A screenshot of an Excel spreadsheet. The formula bar at the top shows `=XLOOKUP(C8,A2:A6,D2:D6)`. The spreadsheet has columns A through I and rows 1 through 10. Column A is labeled 'ID', B is 'First', C is 'Last', and D is 'Email'. The data is as follows:

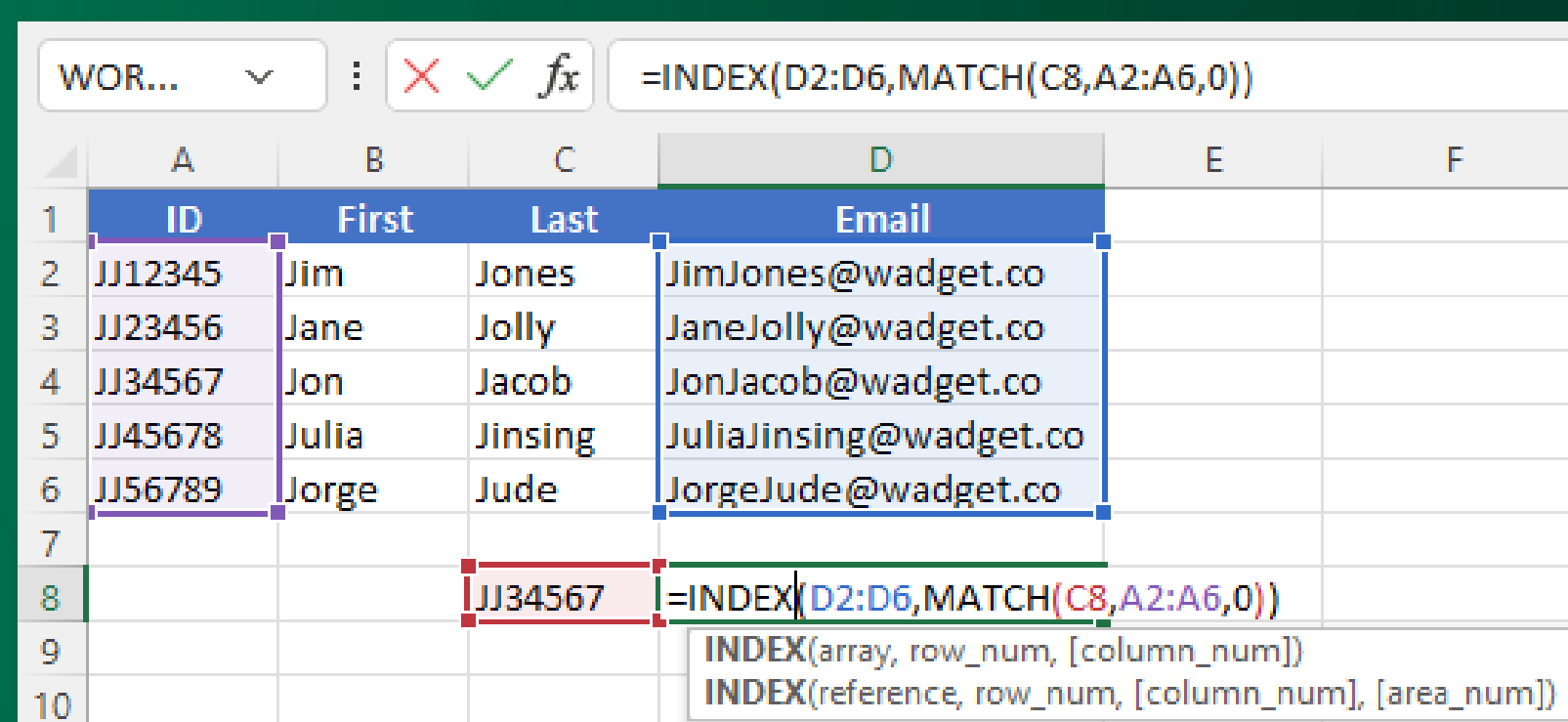
ID	First	Last	Email
JJ12345	Jim	Jones	JimJones@wadget.co
JJ23456	Jane	Jolly	JaneJolly@wadget.co
JJ34567	Jon	Jacob	JonJacob@wadget.co
JJ45678	Julia	Jinsing	JuliaJinsing@wadget.co
JJ56789	Jorge	Jude	JorgeJude@wadget.co

In row 8, cell C8 contains 'JJ34567'. In row 8, cell D8, the formula `=XLOOKUP(C8,A2:A6,D2:D6)` is entered. A tooltip for the XLOOKUP function is visible below the formula bar.

**XLOOKUP:** Used to look up values using an index reference. Replaces VLOOKUP, HLOOKUP, and INDEX/MATCH if used carefully.

### Syntax:

XLOOKUP(Lookup value, Lookup Array, Return Array)



A screenshot of an Excel spreadsheet. The formula bar at the top shows `=INDEX(D2:D6,MATCH(C8,A2:A6,0))`. The spreadsheet has columns A through F and rows 1 through 10. Column A is labeled 'ID', B is 'First', C is 'Last', and D is 'Email'. The data is as follows:

ID	First	Last	Email
JJ12345	Jim	Jones	JimJones@wadget.co
JJ23456	Jane	Jolly	JaneJolly@wadget.co
JJ34567	Jon	Jacob	JonJacob@wadget.co
JJ45678	Julia	Jinsing	JuliaJinsing@wadget.co
JJ56789	Jorge	Jude	JorgeJude@wadget.co

In row 8, cell C8 contains 'JJ34567'. In row 8, cell D8, the formula `=INDEX(D2:D6,MATCH(C8,A2:A6,0))` is entered. A tooltip for the INDEX function is visible below the formula bar.

**INDEX/MATCH:** If you do not have XLOOKUP available on your version of Excel, INDEX/MATCH is the next best option. It uses the combination of functions to perform lookups in a much more flexible way than VLOOKUP and HLOOKUP.

### Syntax:

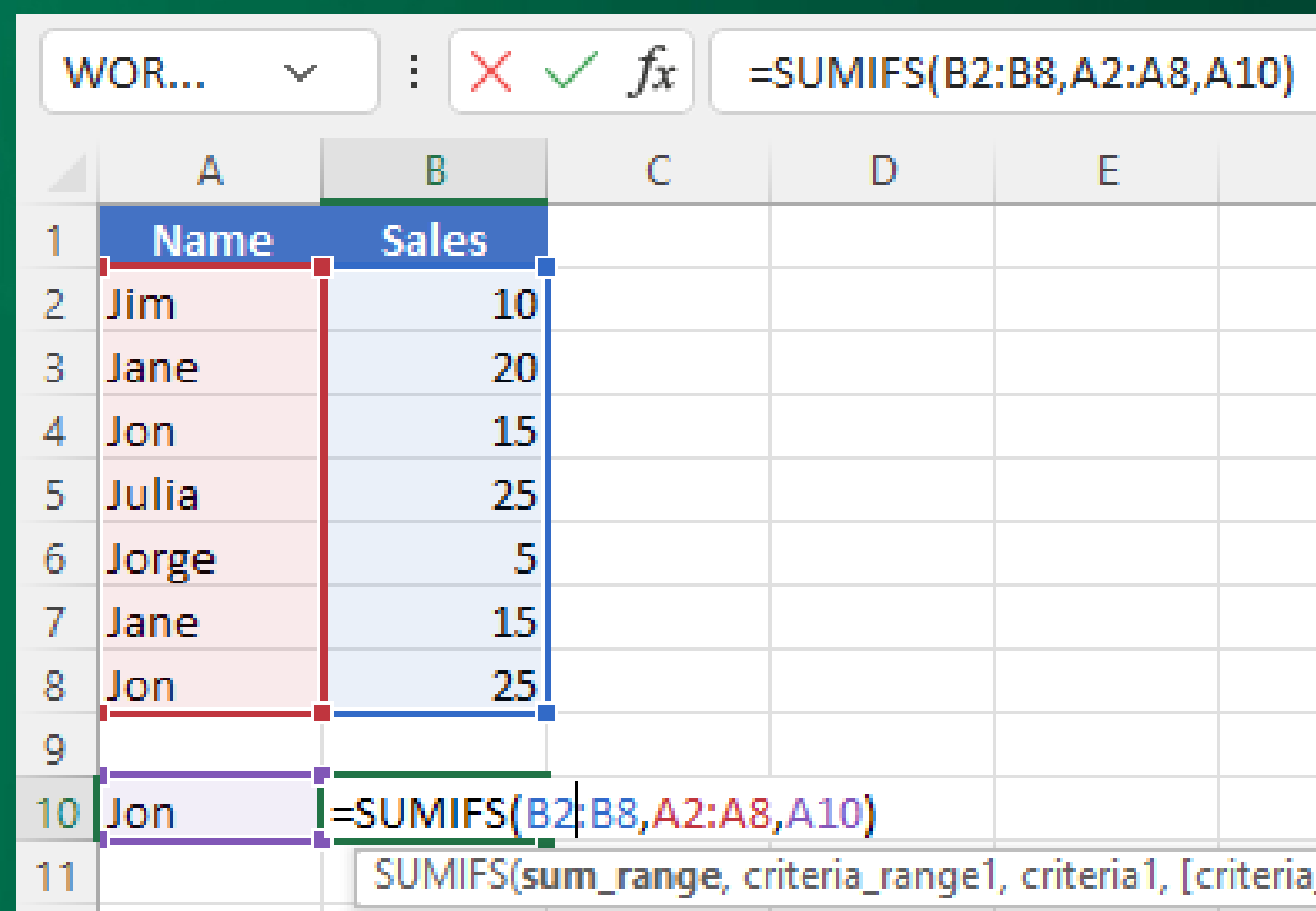
INDEX(Return Array,MATCH(Lookup Value, Lookup Array,0))

*REPETITION IS THE KEY TO RETENTION*

# FUNCTIONS

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## CALCULATIONS



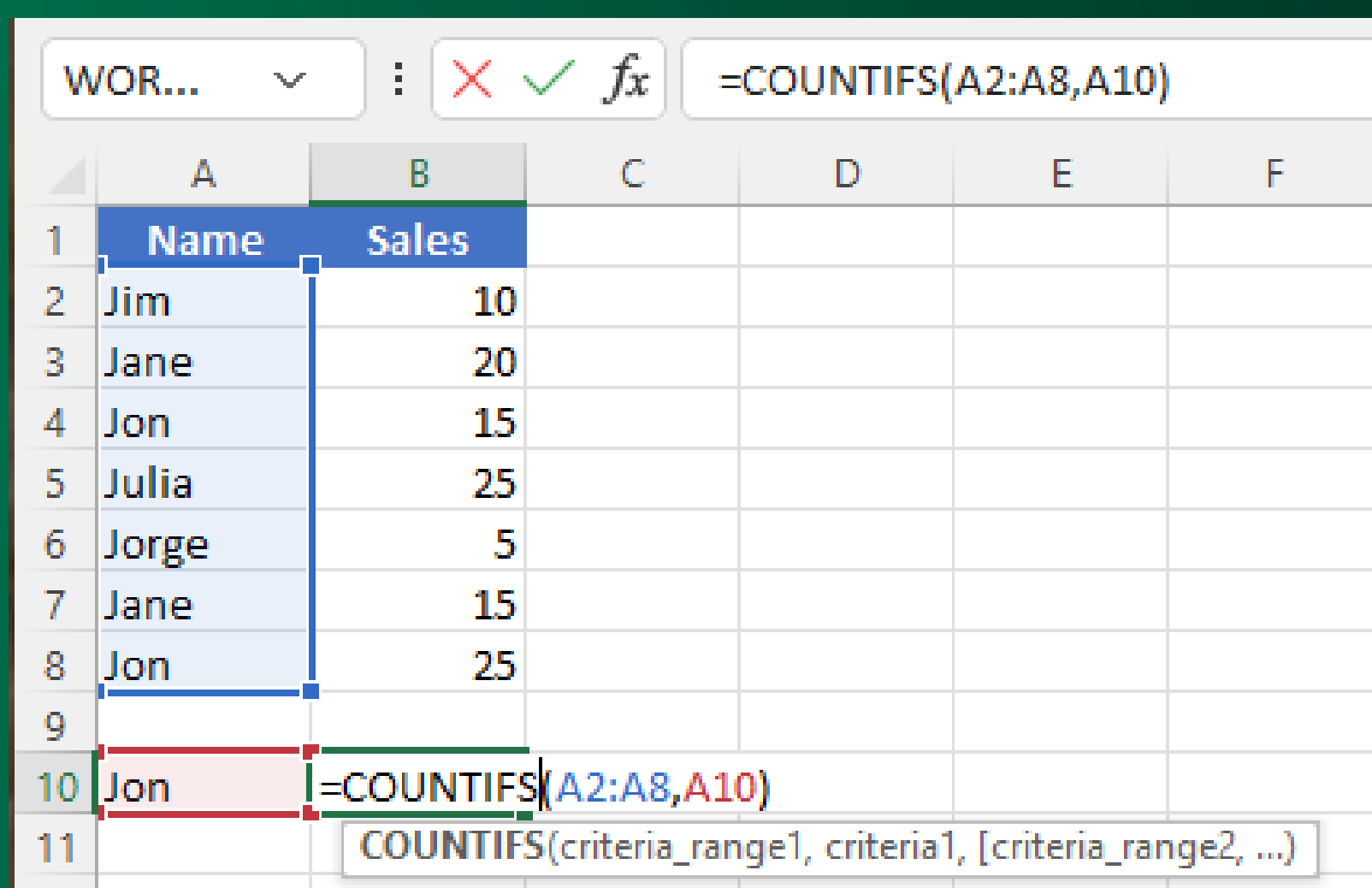
A screenshot of an Excel spreadsheet. The formula bar at the top shows `=SUMIFS(B2:B8,A2:A8,A10)`. The spreadsheet has columns A through E. Row 1 has headers 'Name' in A1 and 'Sales' in B1. Rows 2-8 contain data: Jim (10), Jane (20), Jon (15), Julia (25), Jorge (5), Jane (15), and Jon (25). Row 10 has 'Jon' in A10, and the formula `=SUMIFS(B2:B8,A2:A8,A10)` is entered in B10. A tooltip at the bottom shows the syntax: `SUMIFS(sum_range, criteria_range1, criteria1, [criteria`.

	A	B	C	D	E
1	Name	Sales			
2	Jim	10			
3	Jane	20			
4	Jon	15			
5	Julia	25			
6	Jorge	5			
7	Jane	15			
8	Jon	25			
9					
10	Jon	=SUMIFS(B2:B8,A2:A8,A10)			
11					

**SUMIFS:** Used to sum values from a data set using specific criteria

### Syntax:

SUMIFS(Sum Range,Criteria range 1, Criteria 1, Criteria Range N, Criteria N)



A screenshot of an Excel spreadsheet. The formula bar at the top shows `=COUNTIFS(A2:A8,A10)`. The spreadsheet has columns A through F. Row 1 has headers 'Name' in A1 and 'Sales' in B1. Rows 2-8 contain data: Jim (10), Jane (20), Jon (15), Julia (25), Jorge (5), Jane (15), and Jon (25). Row 10 has 'Jon' in A10, and the formula `=COUNTIFS(A2:A8,A10)` is entered in B10. A tooltip at the bottom shows the syntax: `COUNTIFS(criteria_range1, criteria1, [criteria_range2, ...])`.

	A	B	C	D	E	F
1	Name	Sales				
2	Jim	10				
3	Jane	20				
4	Jon	15				
5	Julia	25				
6	Jorge	5				
7	Jane	15				
8	Jon	25				
9						
10	Jon	=COUNTIFS(A2:A8,A10)				
11						

**COUNTIFS:** Used to count instances from a data set using specific criteria

### Syntax:

COUNTIFS(Criteria range 1, Criteria 1, Criteria Range N, Criteria N)

*REPETITION IS THE KEY TO RETENTION*