## TRIM/UPPER/LOWER/PROPER

## Text functions can be used to standardize formatting, particularly the TRIM, UPPER, LOWER, and PROPER functions:

$\mathcal{A}$	Α	В	С	D
1	Sample Text String	Formula	Output	Notes
2	SAMPLE sentence	=TRIM(A2)	SAMPLE sentence	Removes any leading or trailing spaces from a text string
3	SAMPLE sentence	=LOWER(A3)	sample sentence	Converts all characters in a text string to lower case
4	SAMPLE sentence	=UPPER(A4)	SAMPLE SENTENCE Converts all characters in a text string to upper case	
5	SAMPLE sentence	=PROPER(A5)	Sample Sentence	Converts all characters in a text string to proper case (first letter capitalized)
6				



### PRO TIP:

If two text strings are identical except one has a trailing space, they will look exactly the same but Excel will treat them as completely different values; TRIM will make them equivalent



# **CONCATENATE** allows you to combine text, cell values, or formula outputs into a single text string

**Note:** Rather than typing "=CONCATENATE(Text1, Text2...)", you can simply separate each piece of the resulting text string with an ampersand ("&")

4	Α	В	С	D
1	First Name	Last Name	Formula	Output
2	Daniel	Wright	=A2&B2	DanielWright
3	Daniel	Wright	=A3&" "&B3	Daniel Wright
4	Daniel	Wright	=LEFT(A4,3)&" "&B4	Dan Wright
5	Daniel	Wright	=LEFT(A5,3)&" "&LEFT(B5,1)&"."	Dan W.
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The LEFT, MID, and RIGHT functions return a specific number of characters from a location within a text string, and LEN returns the total number of characters

- =LEFT(text, [num\_chars])
- =RIGHT(text, [num\_chars])
- =MID(text, start\_num, num\_chars)

4	А	В	С	D
1	Sample Text String	Formula	Output	Notes
3	MA-02215%AAA%_100	=LEFT(A3,2)	MA	Returns 2 characters, starting from the left
5	MA-02215%AAA%_100	=MID(A5,4,5)	02215	Returns 5 characters from the middle of the string, starting with position 4
7	MA-02215%AAA%_100	=RIGHT(A7,3)	100	Returns 3 characters, starting from the right
9	MA-02215%AAA%_100	=LEN(A9)	17	Returns the length of the string (=17 characters)



### The TEXT function converts a numeric value to text and assigns a particular format

=TEXT(value, format\_text)

Numeric value, formula that evaluates to a numeric value, or reference to a cell containing a numeric value

Numeric format as a text string enclosed in quotes (i.e. "m/d/yyyy", "\$0.00" or "#,##0.00"

$\mathcal{A}$	Α	В		
1	Name	Earnings		
2	Tim	\$4,500		
3	George	\$3,250		
4	Lisa	\$3,725		
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="Lisa earned "&B4 returns "Lisa earned 3725"

="Lisa earned "&TEXT(B4"\$#,###") returns "Lisa earned \$3,725"



### PRO TIP:

Use **VALUE** to convert a text string that represents a number into a value



# The **SEARCH** function returns the number of the character at which a specific character or text string is first found (otherwise returns #VALUE! error)

=SEARCH(find\_text, within\_text, [start\_num])

What character or string are you searching for?

Where is the text that you're searching through?

Search from the beginning (default) or after a certain number of characters?

1	Α	В	С	D
11	MA-02215%AAA%_100	=SEARCH("%",A11)	9	Searches the string for "%" and returns the position
13	MA-02215%AAA%_100	=SEARCH("%",A13,10)	13	Searches for "%", starting with the 10th character, and returns the position
15	MA-02215%AAA%_100	=MID(A13,SEARCH("%",A13),5)	%AAA%	Returns 5 chars from the middle of the string, beginning where it finds "%"
17	MA-02215%AAA%_100	=MID(A13,SEARCH("%",A15)+1,3)	AAA	Returns 3 chars from the middle of the string, beginning 1 position after "%"
4.0				



### PRO TIP:

The FIND function works exactly the same way, but is case-sensitive



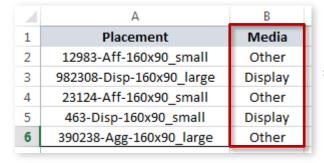
## IF (ISNUMBER (SEARCH

IF(ISNUMBER(SEARCH is powerful combination of functions that can be used to classify data based on cells that contain specific strings of text

=IF(ISNUMBER(SEARCH(find\_text, within\_text)),value\_if\_true, value\_if\_false)

Searches for a specific string of text within a given cell

Returns one value if that string is found (TRUE), and another if it is not found (FALSE)



=IF(ISNUMBER(SEARCH("Disp",A2)),"Display","Other")

Search the cells in column A for the text string "Disp" and classify column B as "Display" if you find it, "Other" if you don't

