

8 Formulas for Analyzing Data Using Spreadsheet Software

Below are 8 simple formulas that you can use within Microsoft Excel to help gain key information from your evaluation data.

1. =SUM

- Sum can only be used to add up numbers
- Adds up the numbers in a range
- You can also usually use the AutoSum button, but make sure it adds up the right numbers



2. =SUMIF()

The sumif function adds up the numbers in a range only if they meet a particular criteria.

EXAMPLE: Cells D3 to D6 are checked to see if they contain the letter 'M'

=SUM or SUMIF can be used to add together numbers and numbers based on a criteria

FOR EXAMPLE, we can add up the number of resources we used in programs this week, but we can also count based on the type of resource

В	С	D
Name	Score	Gender
Bob	102	м
Joe	47	М
Sue	22	F
Lisa	121	F
=SUMIF(D	3:D6,"M",C	3:C6)

3. =MIN OR =MAX

- =MIN will give us the smallest number from a range of numbers
- =MAX will return the largest number from a range
- We can use =MIN to find:
 - The age of youngest participant
 - The lowest score
 - Which day had the lowest attendance
- We can use =MAX to find:
 - What is the oldest age
 - The highest score
 - Which day had the highest attendance

🗟 Book1		
	A	В
1	1	
2 3	2	
3	3	
4	3	
5	4	
6	5	
7	=MIN(A1:A	\6)

4. =AVERAGE

- Will return the average (arithmetic mean) of the numbers in a range
- In this example, the A1:A4 range will return an average of 2.25

Book1		
	А	В
1	1	
2	2	
3	3	
4	3	
5	=AVERAG	E(A1:A4)

5. =AVERAGEIF (range, criteria, average range)

Will return the average of the numbers in a range if they meet the criteria

EXAMPLE: Cells D3 to D6 are checked to see if they contain the letter 'M'. If they do, the numbers in C3:C6 are added together

We can use this to determine:

- Average number of participants who attend a program weekly
- Average age of participants
- Average rating/score

В	С	D
Name	Score	Gender
Bob	102	М
Joe	47	м
Sue	22	F
Lisa	121	F
AVERAG	EIF(D3:D6,"	F",C3:C6)

6. =COUNT() AND =COUNTA()

- =Count only counts numbers
- = counta counts how many cells have something in them
- This could be handy if we wanted to explore:
 - Attendance
 - Case notes
 - Check marks
 - ...or anything else that would not be possible to mathematically calculate

1	Α	В	С	D
1				
2		Name	Score	Gender
3		Bob	102	M
4		Joe	47	M
5		Sue	22	F
6		Lisa	121	F
7				
8	Count	0	4	0
9	CountA	4	4	4
10				

7. =COUNTIF

- Countif only counts the cell "if" a criteria is met
- In this example, we are only counting cells in the A1:A4 range which match the word pizza
- This formula would give us the result 1, as there is only one mention of pizza
- Note: =COUNTIFS: counts using multiple criteria

• We could use this formula to

- Count males and females
- Program site
- Allergies
- Yes/no questions
- ...or anything else where we need to find a particular word or number

	А	В	С	D	E	
1	1		1			
2	pizza		pizza			
3	3		3			
4	blue		blue			
5	1		=COUNTIF	(C1:C4,"pi	zza")	
6						
-						

8. =IF(logical test, true, false)

• The IF statement has three parts

- 1. The logical test
- 2. What happens if the test is true
- 3. What happens if the test is false
- We could use this to:
- Check if a criteria is met, for example, have Excel write Pass or Fail based on a grade or write Yes or No based on attendance
- Have Excel report using easy to understand language that make summaries easier to understand

В	С	D	E	F	G	н	1
Name	DOB	End of fiscal year	Age	Over 15?			
Bob	1-May-01	31-Mar-19	17	Over 15			
Joe	25-Dec-05	31-Mar-19	13	Under 15			
Sue	4-Feb-06	31-Mar-19	13	Under 15			
Lisa	17-Aug-03	31-Mar-19	15	=IF(E6>15,	"Over 15",	"Under 15")



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