EXCEL

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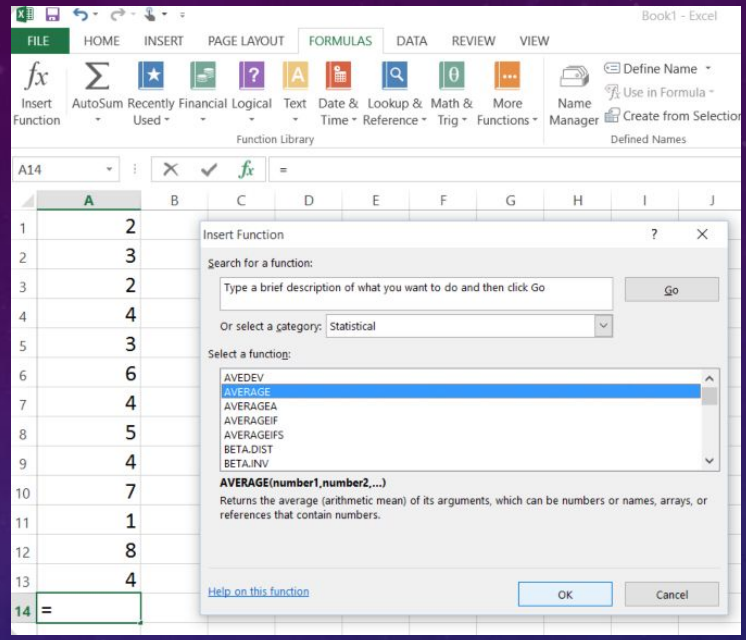
CHECKED BY AUBAKIR.E

PLAN
TO GRIND UP

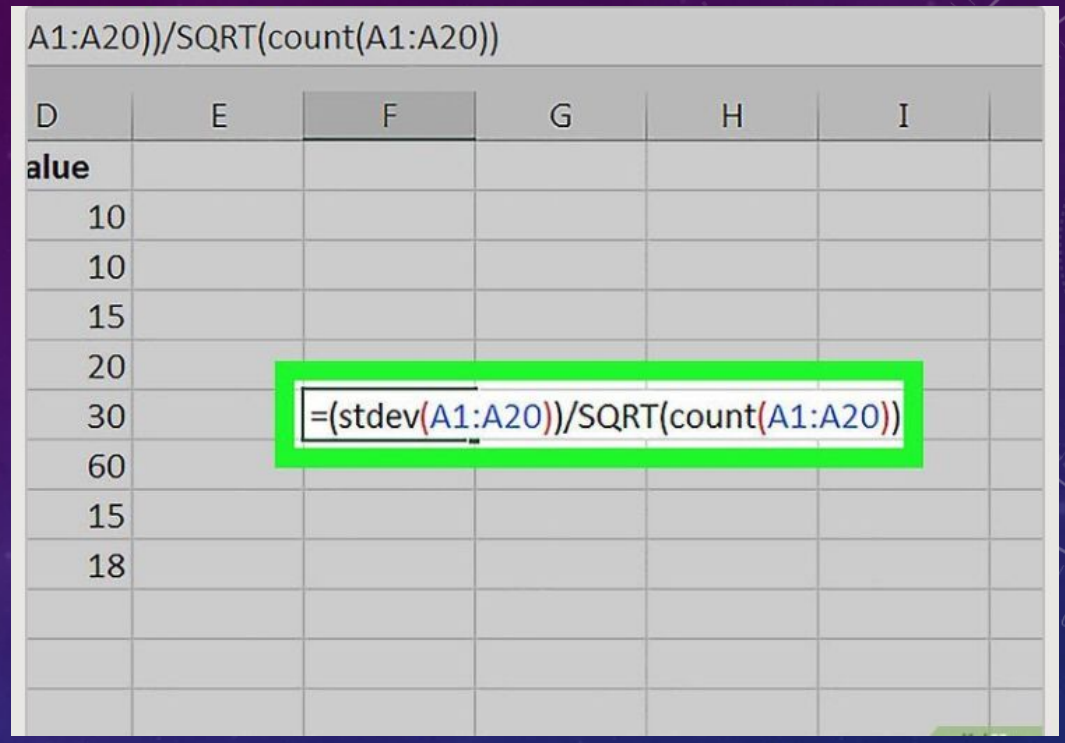
- • Mean• Standard error• Median• Mode• Standard deviation• Sample Variance• Kurtosis• Skewness• Range• Maximum• Minimum• Sum• Count

MEAN



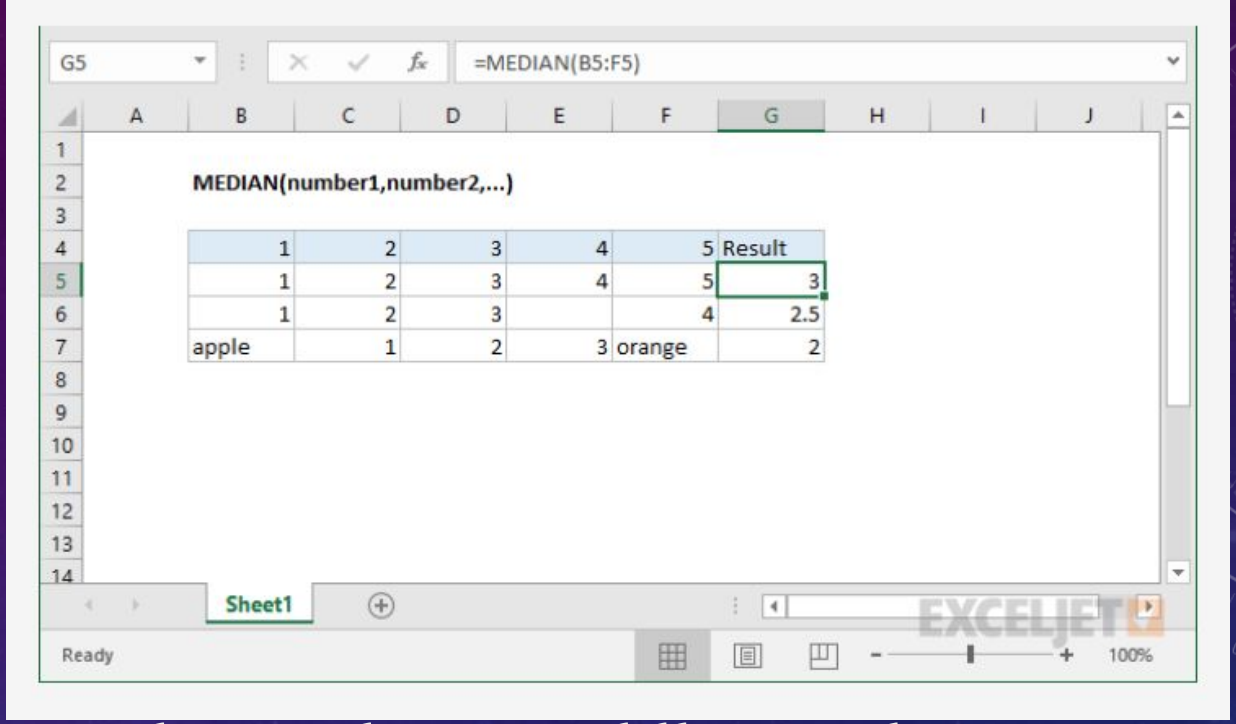
- Enter the scores in one of the columns on the Excel spreadsheet (see the example below). After the data have been entered, place the cursor where you wish to have the mean (average) appear and click the mouse button. Select **Insert Function (*fx*)** from the **FORMULAS** tab. A dialog box will appear. Select **AVERAGE** from the **Statistical** category and click **OK**. (Note: If you want the Median, select **MEDIAN**. If you want the Mode, select **MODE.SNGL**. Excel only provides one mode. If a data set had more than one mode, Excel would only display one of them.)

STANDARD ERROR



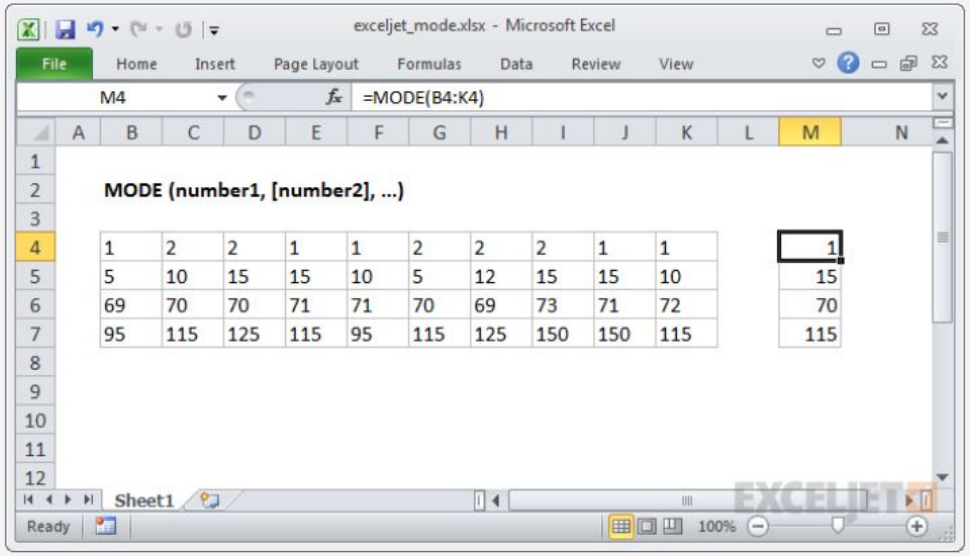
- The formula for calculating the Standard Error of the mean in Excel is `=stdev(''cell range'')/SQRT(count("cell range"))`.

MEDIAN



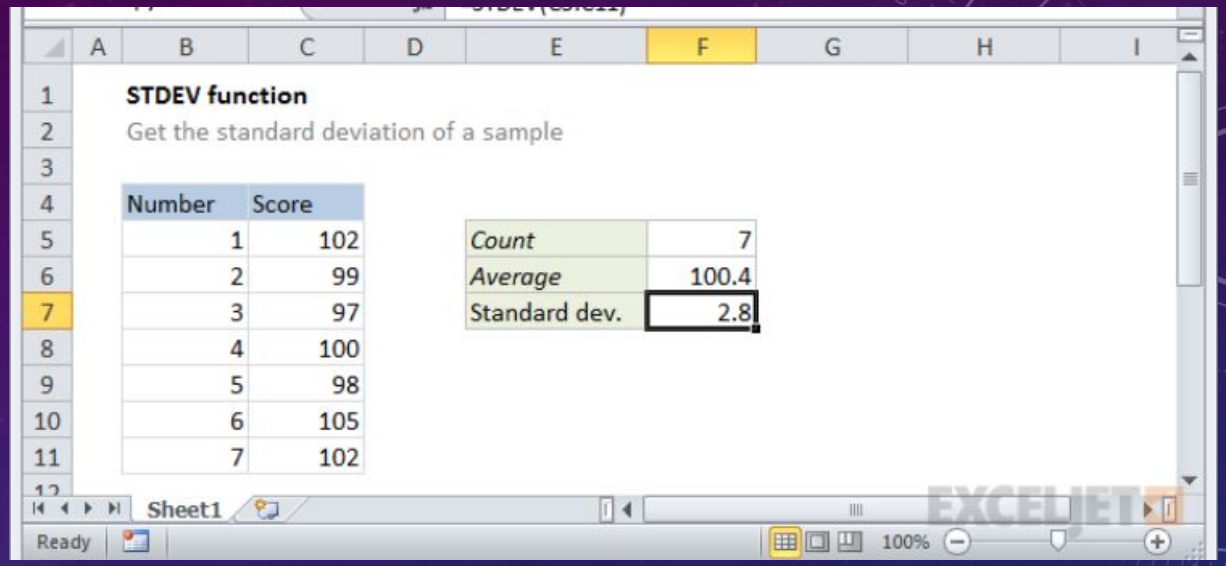
- The MEDIAN function returns the median (middle number) in a group of supplied numbers. For example, =MEDIAN(1,2,3,4,5) returns 3.

MODE



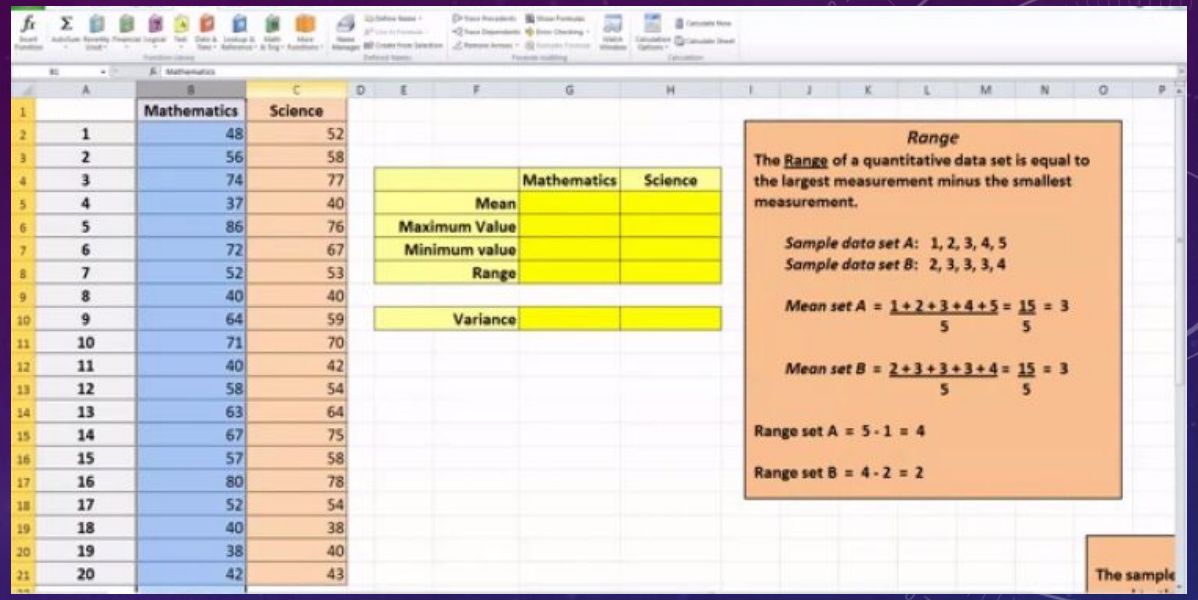
- The Excel MODE function returns the most frequently occurring number in a numeric data set. For example, =MODE(1,2,4,4,5,5,5,6) returns 5.

STANDARD DEVIATION



- Use the **Excel Formula** =**STDEV**( ) and select the range of values which contain the data. This calculates the sample **standard deviation** (n-1). Use the web **Standard Deviation** calculator and paste your data, one per line.

SAMPLE VARIANCE



		Mathematics	Science
1	1	48	52
2	2	56	58
3	3	74	77
4	4	37	40
5	5	86	76
6	6	72	67
7	7	52	53
8	8	40	40
9	9	64	59
10	10	71	70
11	11	40	42
12	12	58	54
13	13	63	64
14	14	67	75
15	15	57	58
16	16	80	78
17	17	52	54
18	18	40	38
19	19	38	40
20	20	42	43

	Mathematics	Science
Mean		
Maximum Value		
Minimum value		
Range		
Variance		

Range

The Range of a quantitative data set is equal to the largest measurement minus the smallest measurement.

Sample data set A: 1, 2, 3, 4, 5
Sample data set B: 2, 3, 3, 3, 4

Mean set A = $\frac{1+2+3+4+5}{5} = \frac{15}{5} = 3$

Mean set B = $\frac{2+3+3+3+4}{5} = \frac{15}{5} = 3$

Range set A = 5 - 1 = 4

Range set B = 4 - 2 = 2

The sample

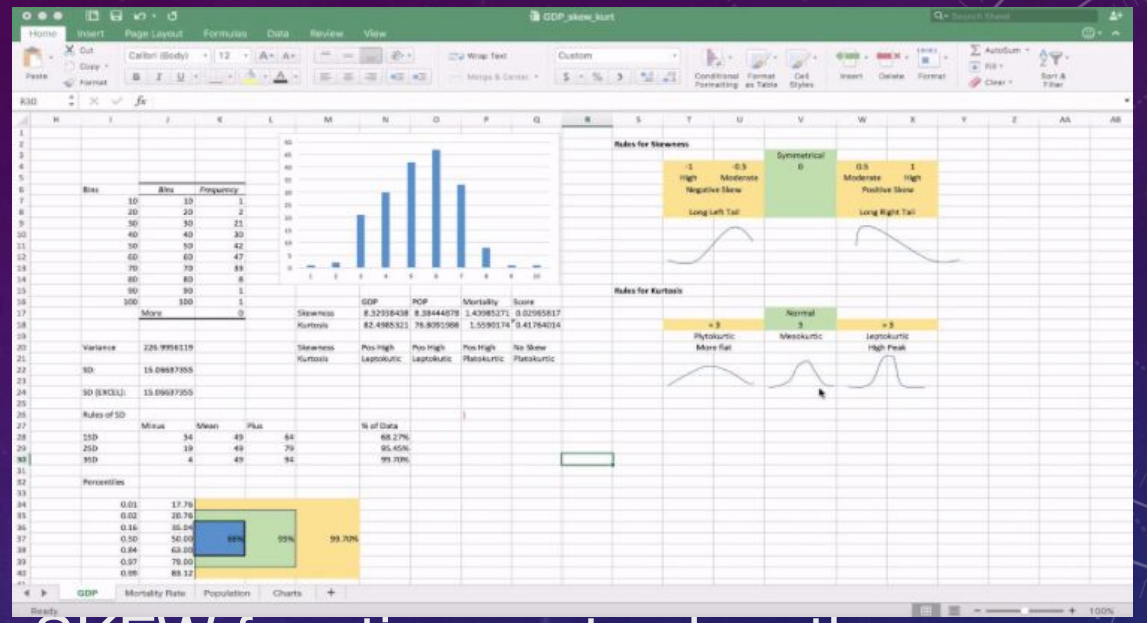
- **Sample Variance Excel** 2013: VAR **Function.** Step 1: Type your data into a single column. Step 3: Type “=VAR(A1:A100)” where A1:A100 is the location of your data set (i.e. in cells A1 to A100). Press the “Enter” key to get the **sample variance.**

KURTOSIS

$$\left[\frac{n(n+1)}{(n-1)(n-2)(n-3)}\sum\left(\frac{x_i-\bar{x}}{s}\right)^4\right]-\frac{3(n-1)^2}{(n-2)(n-3)}$$

- KURT(number1, [number2], ...)The KURT function syntax has the following arguments:**Number1, number2, ...** Number1 is required, subsequent numbers are optional. 1 to 255 arguments for which you want to calculate kurtosis. You can also use a single array or a reference to an array instead of arguments separated by commas.

SKEWNESS

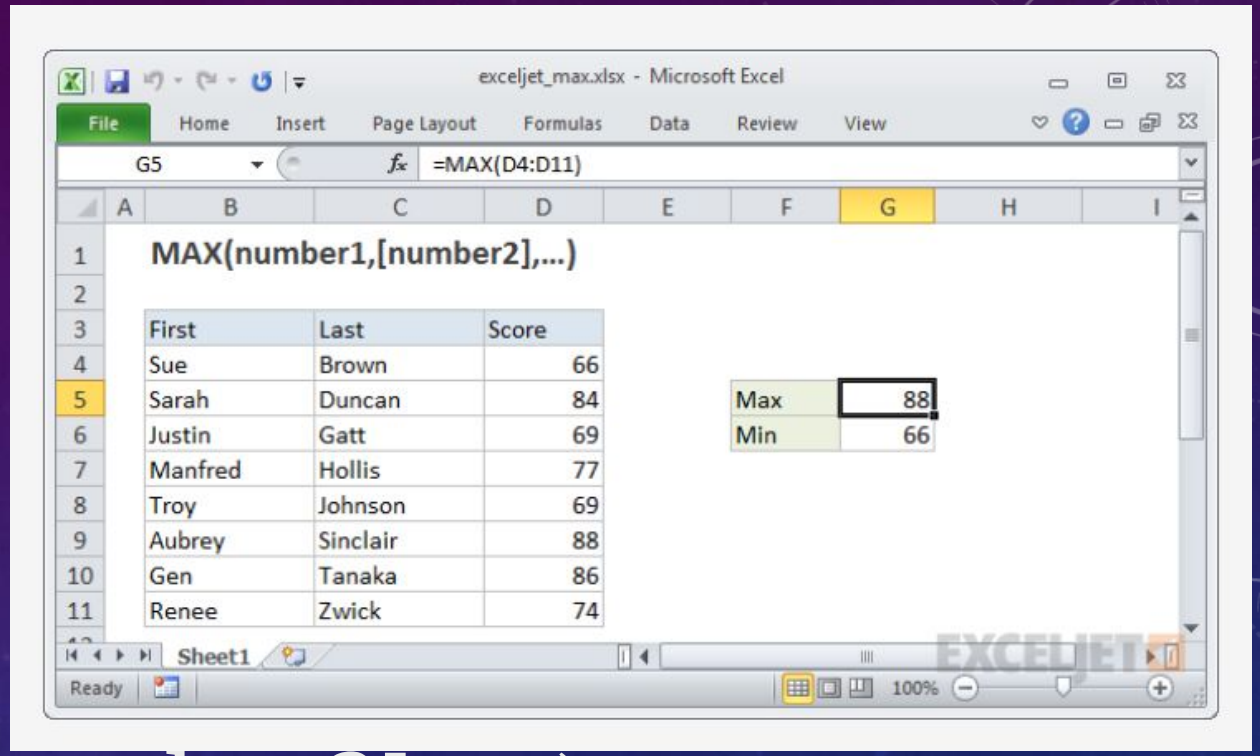


- SKEW(number1, [number2], ...)The SKEW function syntax has the following arguments:**Number1, number2, ...** Number1 is required, subsequent numbers are optional. 1 to 255 arguments for which you want to calculate skewness. You can also use a single array or a reference to an array instead of arguments separated by commas.

RANGE

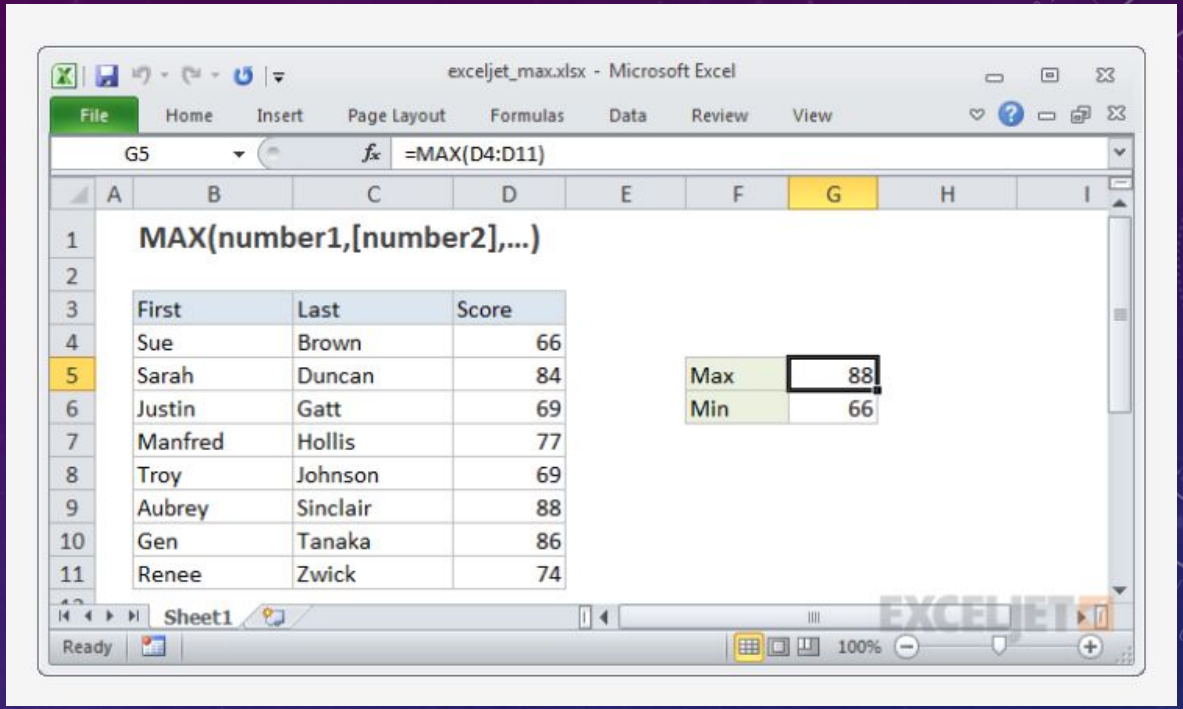
- Range = maximum value – minimum valueSo if you have a set of data such as 4, 2, 5, 8, 12, 15, the range is the highest number (15) minus the lowest number (2). In this case:Range = 15-2 = 13

MAXIMUM



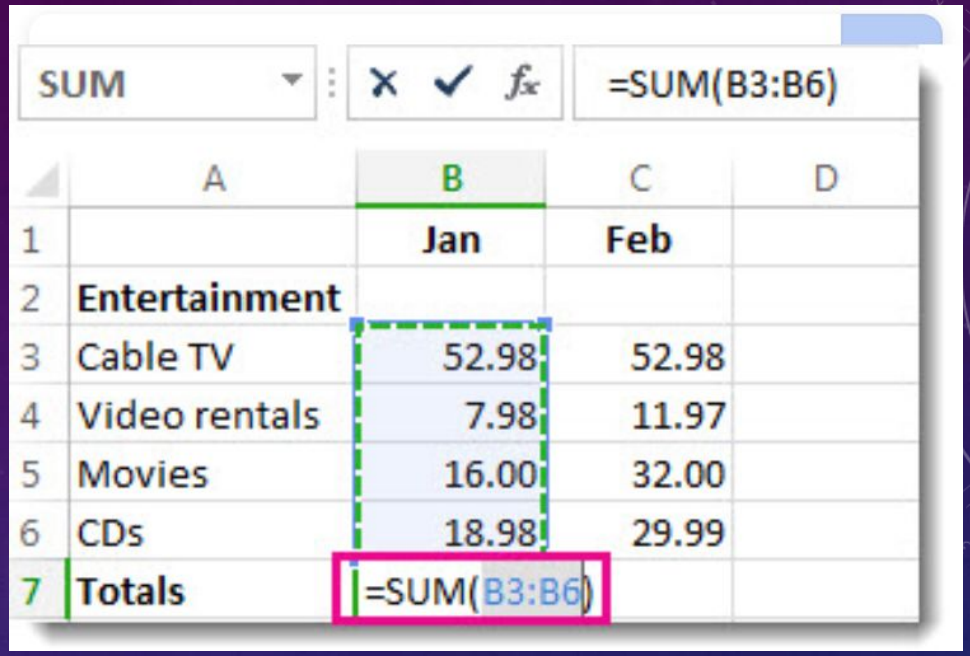
- =MAX (number1, [number2], …)

MINIMUM



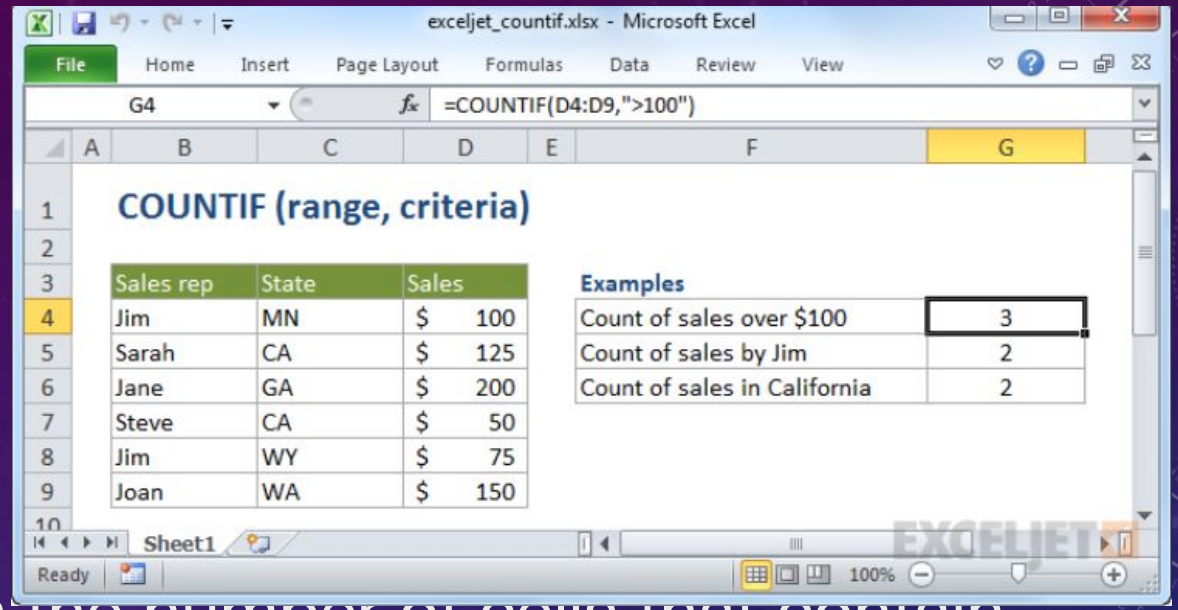
- =MIN (number1, [number2], …)

SUM



- The **SUM** function, one of the math and trig functions, adds values. You can add individual values, cell references or ranges or a mix of all three.For example:**=SUM(A2:A10)**
  =SUM(A2:A10, C2:C10)

COUNT



- The **COUNT** function counts the number of cells that contain numbers, and counts numbers within the list of arguments. Use the **COUNT** function to get the number of entries in a number field that is in a range or array of numbers. For example, you can enter the following formula to count the numbers in the range A1:A20: **=COUNT(A1:A20)**.