

CHAPTER-2

Formulas, Chart and Data

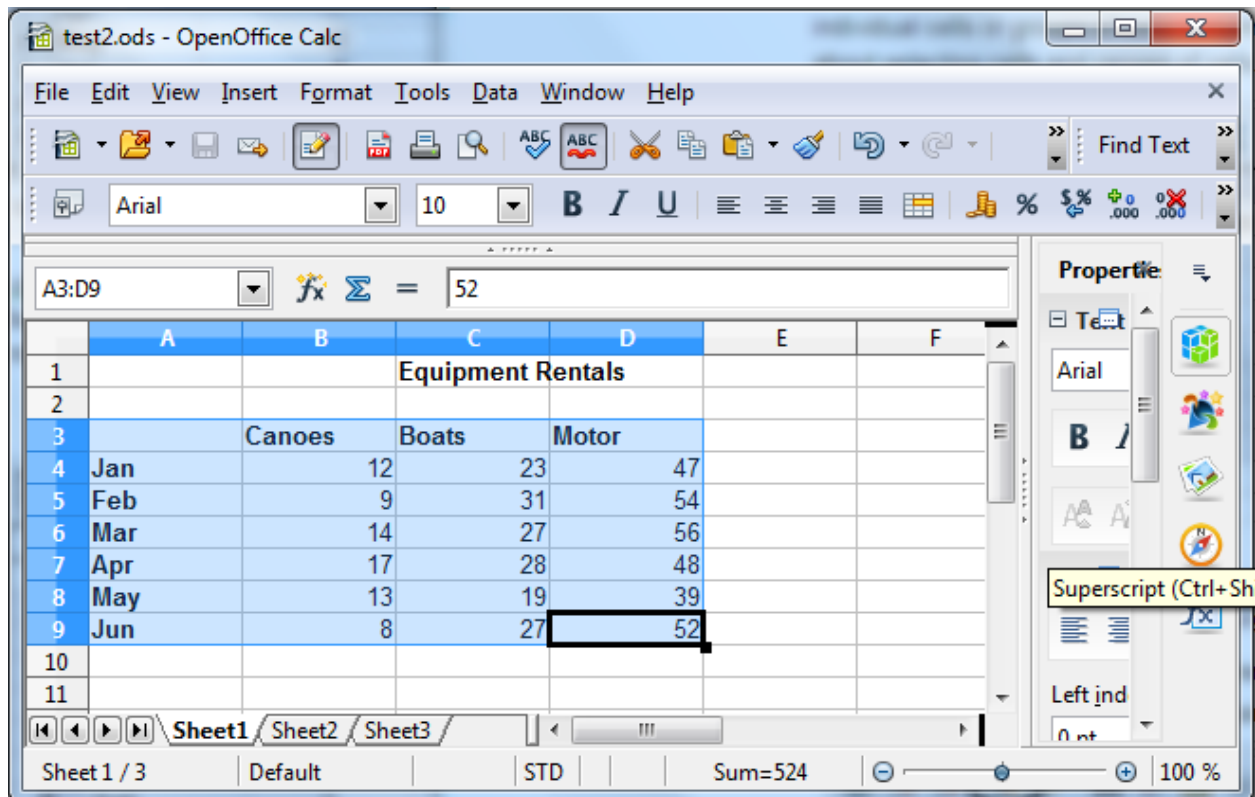
2.1 Charts

2.1.2 Creating 2D and 3D charts

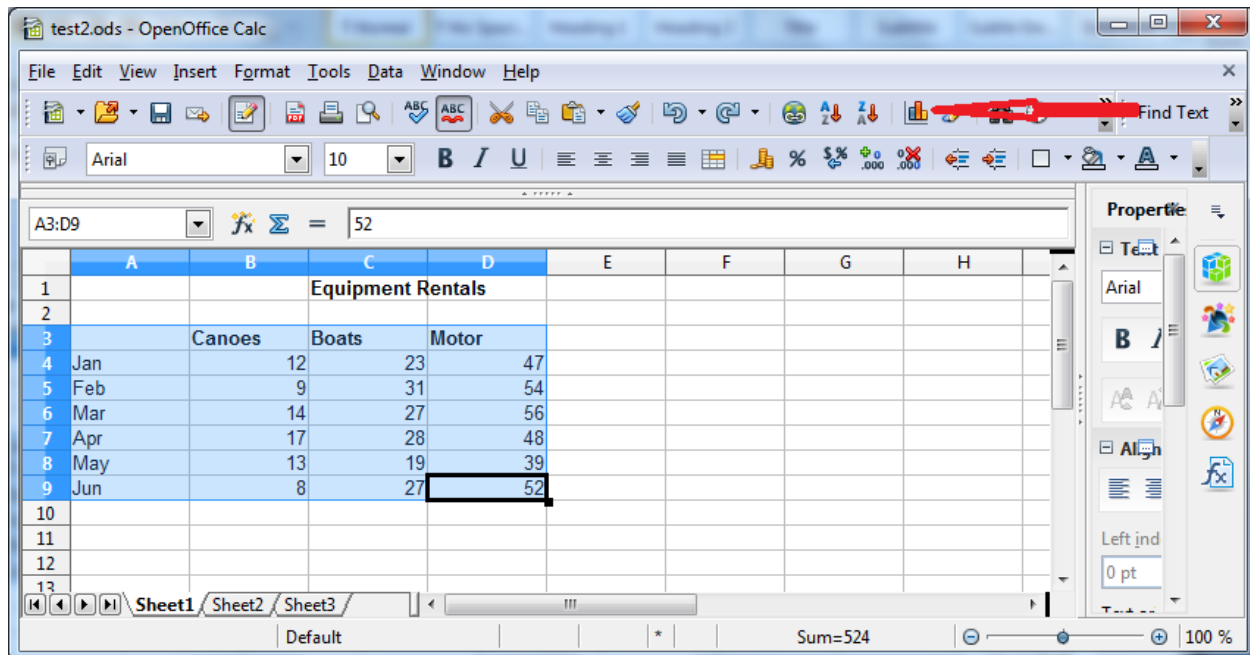
- To demonstrate the process of making charts and graphs in Calc, we will use the small table of data below.

	A	B	C	D	E	F
1			Equipment Rentals			
2						
3		Canoes	Boats	Motor		
4	Jan	12	23	47		
5	Feb	9	31	54		
6	Mar	14	27	56		
7	Apr	17	28	48		
8	May	13	19	39		
9	Jun	8	27	52		
10						
11						

- To create a chart, first highlight (select) the data to be included in the chart.
- The selection does not need to be in a single block, as shown below; you can also choose individual cells or groups of cells (columns or rows).



- Next, open the Chart Wizard dialog using one of two methods.
- Select Insert > Chart from the menu bar.
- Or, click the Chart icon on the main toolbar.

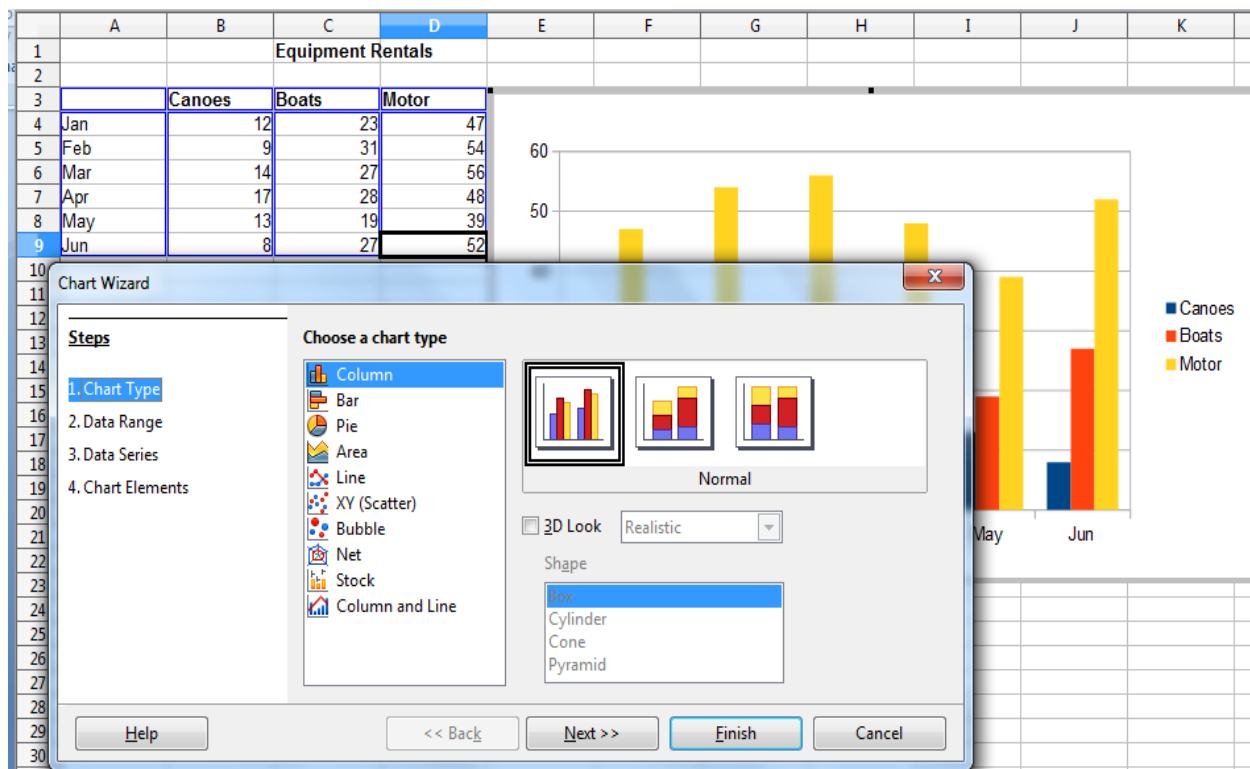


Note:-Just be careful that you have not included the title of your chart.

Choosing a chart type

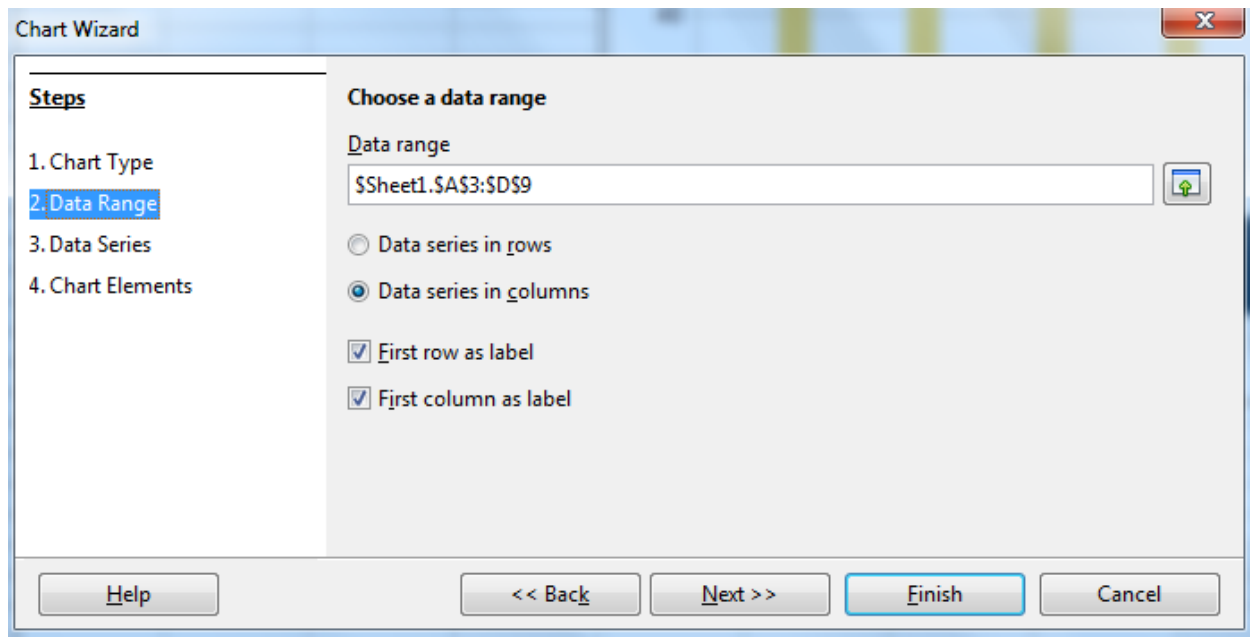
- The Chart Wizard includes a sample chart with your data.
- This sample chart updates to reflect the changes you make in the Chart Wizard.
- The Chart Wizard has three main parts:
 - A list of the steps involved in setting up the chart
 - The list of chart types
 - And the options for each chart type.
- At any time you can go back to a previous step and change selections.
- Calc offers a choice of 10 basic chart types, with a few options for each type of chart. Options vary according to the type of chart you pick.
- The first tier of choice is for two-dimensional (2D) charts. Only those types which are suitable for 3D (Column, Bar, Pie, and Area) give you an option to select a 3D look.

- On the Choose a chart type page, select a type by clicking on its icon. The preview updates every time you select a different type of chart, and provides a good idea of what the finished chart will look like.
- The current selection is highlighted (shown with a surrounding box) on the Choose a chart type page.
- The chart's name is shown just below the icons. For the moment, we will stick with the Column chart and click on Next again.



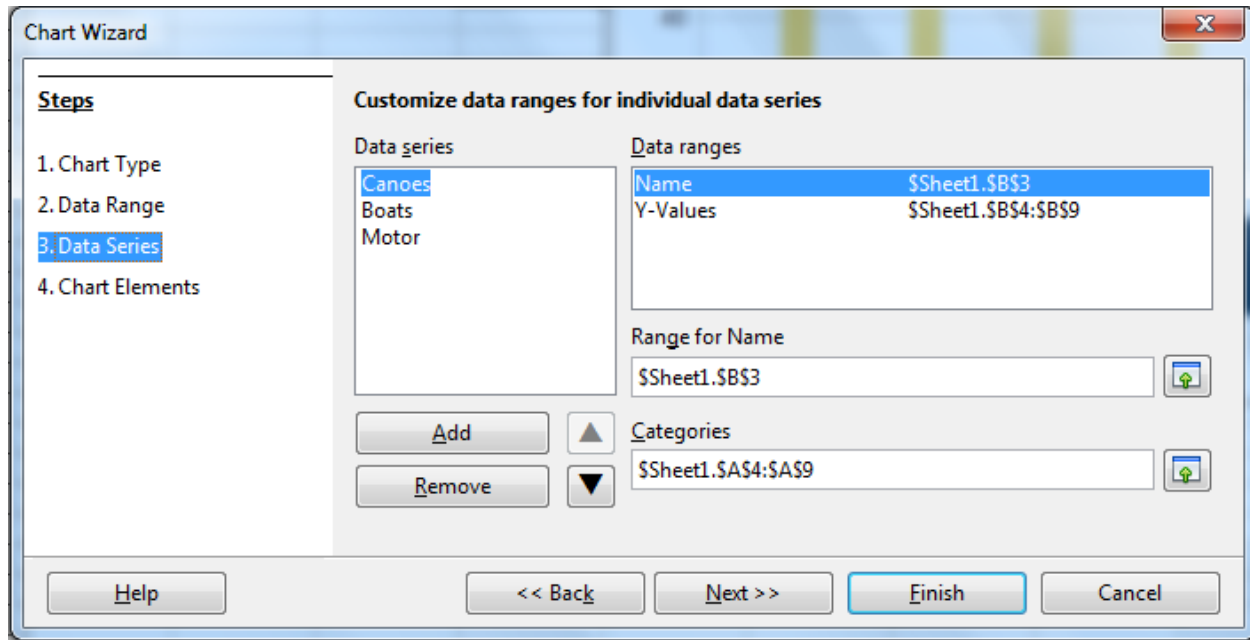
- In Step 2, Data Range, you can manually correct any mistakes you have made in selecting the data.
- On this page you can also change the way you are plotting the data by using the rows—rather than the columns—as data series. This is useful if you use a style of chart such as Donut or Pie to display your data.

- Lastly, you can choose whether to use the first row or first column, or both, as labels on the axes of the chart.
- You can confirm what you have done so far by clicking the Finish button, or click Next to change some more details of the chart.
- We will click Next to see what we can do to our chart using the other pages of the Wizard.



Selecting data series

- On the Data Series page, you can fine tune the data that you want to include in the chart.
- Perhaps you have decided that you do not want to include the data for canoes. If so, highlight Canoes in the Data series box and click on Remove.
- Each named data series has its ranges and its individual Y-values listed.
- This is useful if you have very specific requirements for data in your chart, as you can include or leave out these ranges.



- Another way to plot any unconnected columns of data is to select the first data series and then select the next series while holding down the Ctrl key.
- Or you can type the columns in the text boxes. The columns must be separated by semi-colons. Thus, to plot B3:B11 against G3:G11, type the selection range as B3:B11; G3:G11.
- The two data series you are selecting must be in separate columns or rows.
- Otherwise Calc will assume that you are adding to the same data series.
- Click Next to deal with titles, grids, and legends.

Adding or changing titles, legend, and grids

- On the Chart Elements page, you can give your chart a title and, if desired, a subtitle.

- Use a title that draws the viewers' attention to the purpose of the chart: what you want them to see.
- For example, a better title for this chart might be The Performance of Motor and Other Rental Boats.
- It may be of benefit to have labels for the x axis or the y axis.
- This is where you give people an idea as to the proportion of your data.
- For example, if we put Thousands in the y axis label of our graph, it changes the scope of the chart entirely.
- For ease of estimating data you can also display the x or y axis grids by selecting the Display grids options.
- You can leave out the legend or include it and place it to the left, right, top or bottom.
- To finish the chart, click Finish.

Chart Wizard

Steps

1. Chart Type
2. Data Range
3. Data Series
- 4. Chart Elements**

Choose titles, legend, and grid settings

Title:

Subtitle:

X axis:

Y axis:

Z axis:

Display legend

☒ Display legend

☐ Left

☒ Right

☐ Top

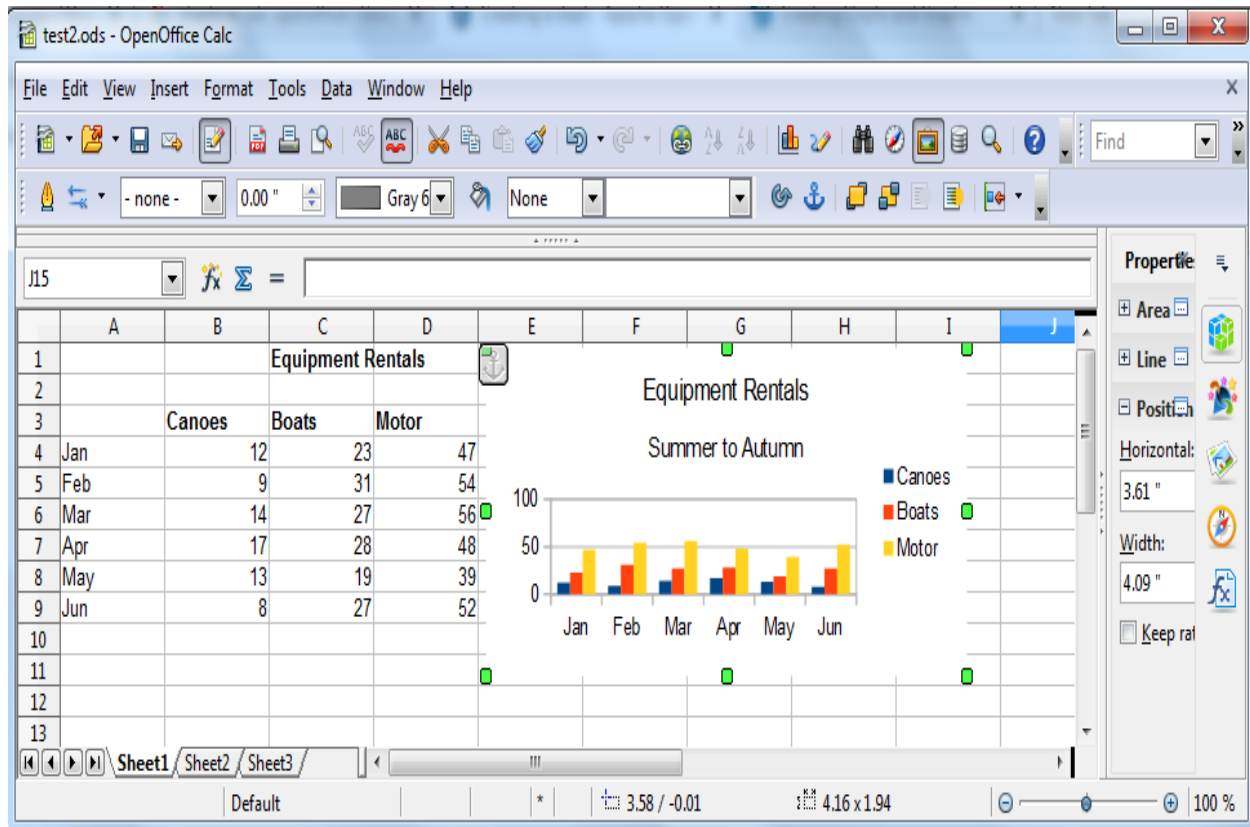
☐ Bottom

Display grids

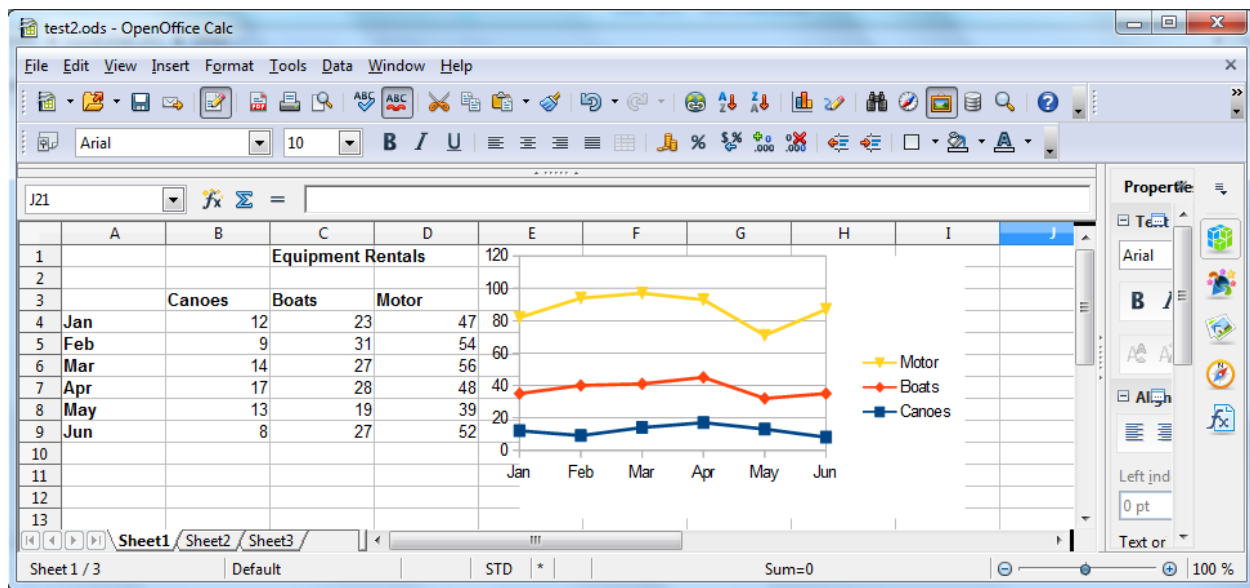
☐ X axis ☒ Y axis ☐ Z axis

Buttons: Help, << Back, Next >>, **Finish**, Cancel

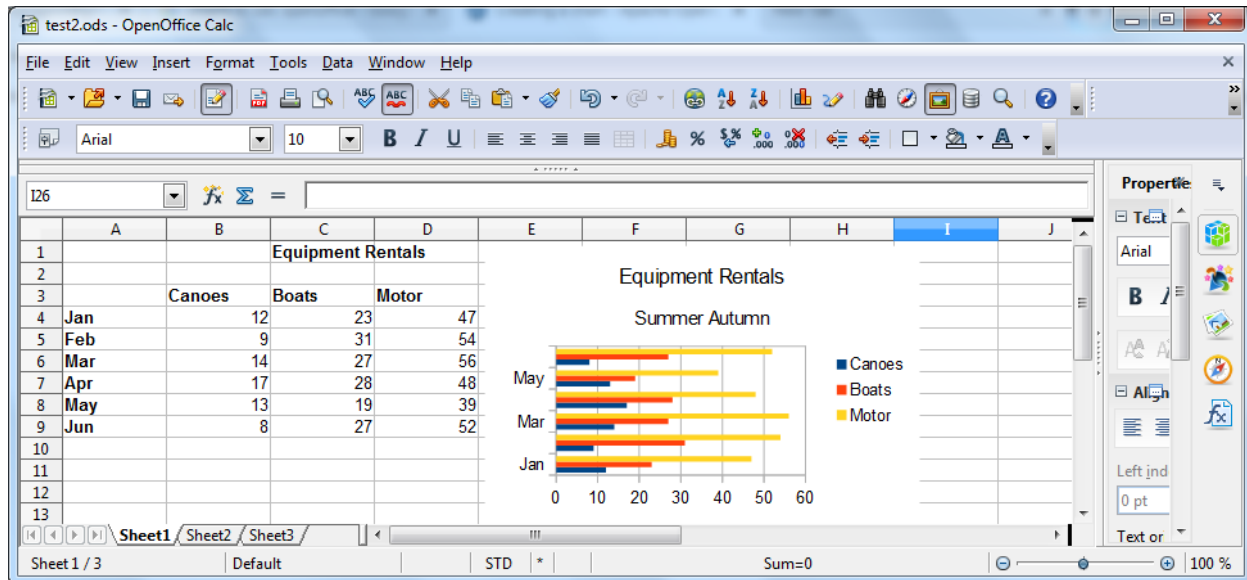
Column Chart:-



Line chart:-



Bar chart:-



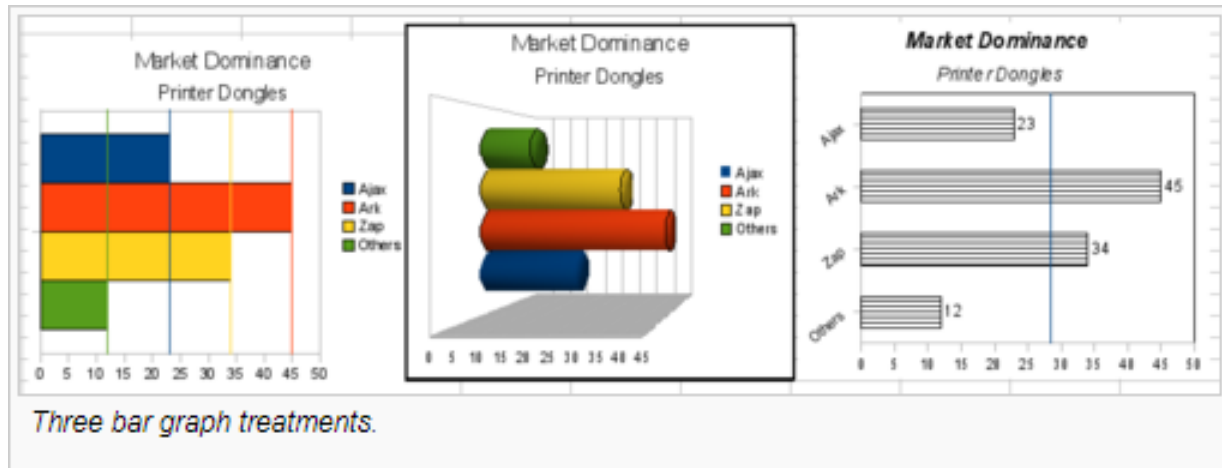
2.1.2 Difference among Columns, Line and Bar charts:-

Column charts

- Column charts are commonly used for data that shows trends over time.
- They are best for charts that have a relatively small number of data points. (For large time series a line chart would be better.)
- It is the default chart type, as it is one of the most useful charts and the easiest to understand.

Bar charts

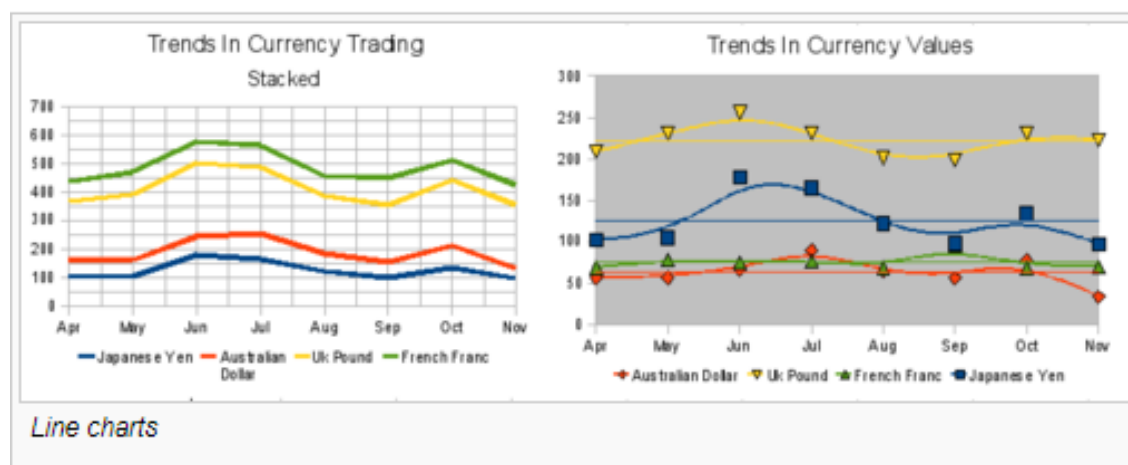
- Bar charts are excellent for giving an immediate visual impact for data comparison where time is not important, for example to compare the popularity of a few products in a marketplace.



- The first chart is achieved quite simply by using the chart wizard with Insert > Grids, deselecting y-axis, and using Insert > Mean Value Lines.
- The second chart is the 3D option in the chart wizard with a simple border and the 3D chart area twisted around.
- The third chart is an attempt to get rid of the legend and put labels showing the names of the companies on the axis instead. We also changed the colors to a hatch pattern.

Line charts

- A line chart is a time series with a progression.
- It is ideal for raw data, and useful for charts with plentiful data that shows trends or changes over time where you want to emphasize continuity.
- On line charts, the x-axis is ideal to represent time series data.
- Things to do with lines: thicken them, make them 3D, smooth the contours, just use points.
- 3D lines confuse the viewer, so just using a thicker line often works better.



2.2 Formulas:-

- We have been entering one of two basic types of data into each cell: numbers and text.
- The contents of one cell depends on the contents of other cells. To handle this situation, we use a third type of data: the formula.
- Formulas are equations using numbers and variables to get a result.
- In a spreadsheet, the variables are cell locations that hold the data needed for the equation to be completed.
- A function is a predefined calculation entered in a cell to help you analyze or manipulate data in a spreadsheet.
- You can enter formulas in two ways, either directly into the cell itself, or at the input line.
- Either way, you need to start a formula with the following symbol: =.
- Starting with anything else causes the formula to be treated as if it were text.

2.2.1 Mathematical and Statistical Functions

1)SUM:-

- Sums the contents of cells.

Syntax:

SUM(number1; number2; ... number30)

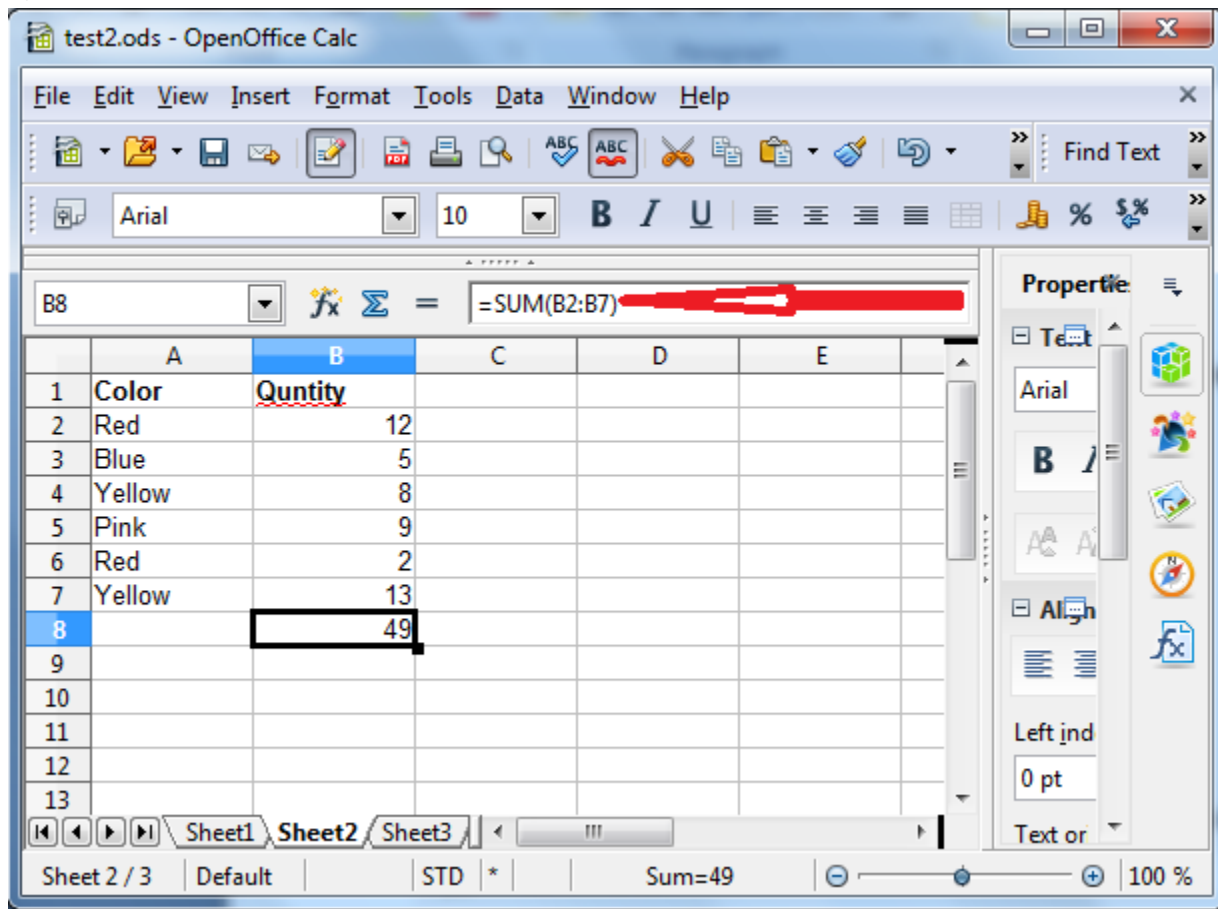
- number1 to number30 are up to 30 numbers or ranges/arrays of numbers whose sum is to be calculated.
- SUM ignores any text or empty cell within a range or array.

Example:

a)SUM(2; 3; 4)

returns 9, because $2+3+4 = 9$.

b)



c)SUM(B1:B3)

(where cells B1, B2, B3 contain 1.1, 2.2, 3.3) returns 6.6.

2) AVERAGE

- Returns the average of the arguments, ignoring text.

Syntax:

AVERAGE(number1; number2; ... number30)

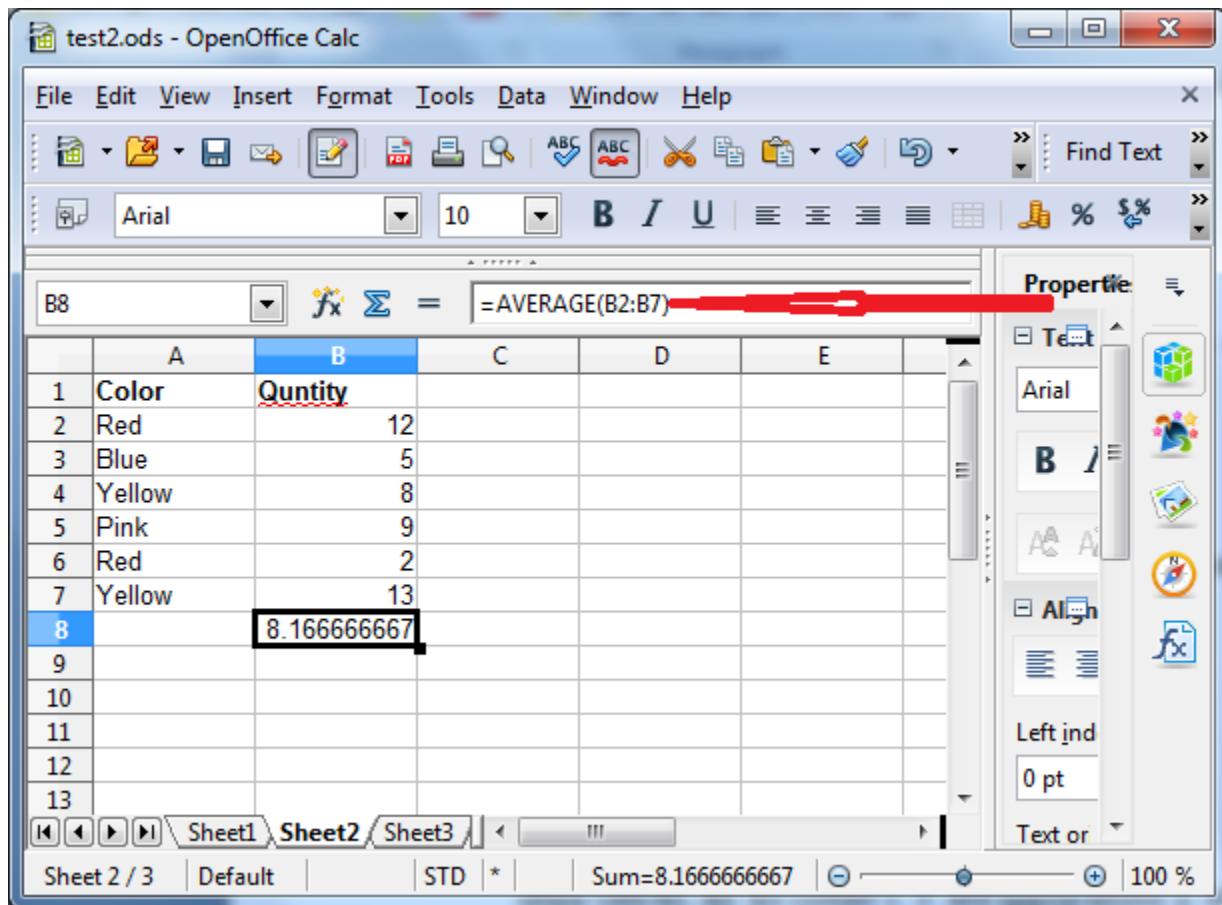
number1 to number30 are up to 30 numbers or ranges containing numbers.

Example:

a) AVERAGE(2; 6; 4)

returns 4, the average of the three numbers in the list.

2)



c) AVERAGE(B1:B3)

where cells B1, B2, B3 contain 1, 3, and apple returns 2, the average of 1 and 3. Text is ignored.

3) COUNT

- Counts the numbers in the list of arguments, ignoring text entries.

Syntax:

COUNT(value1; value2; ... value30)

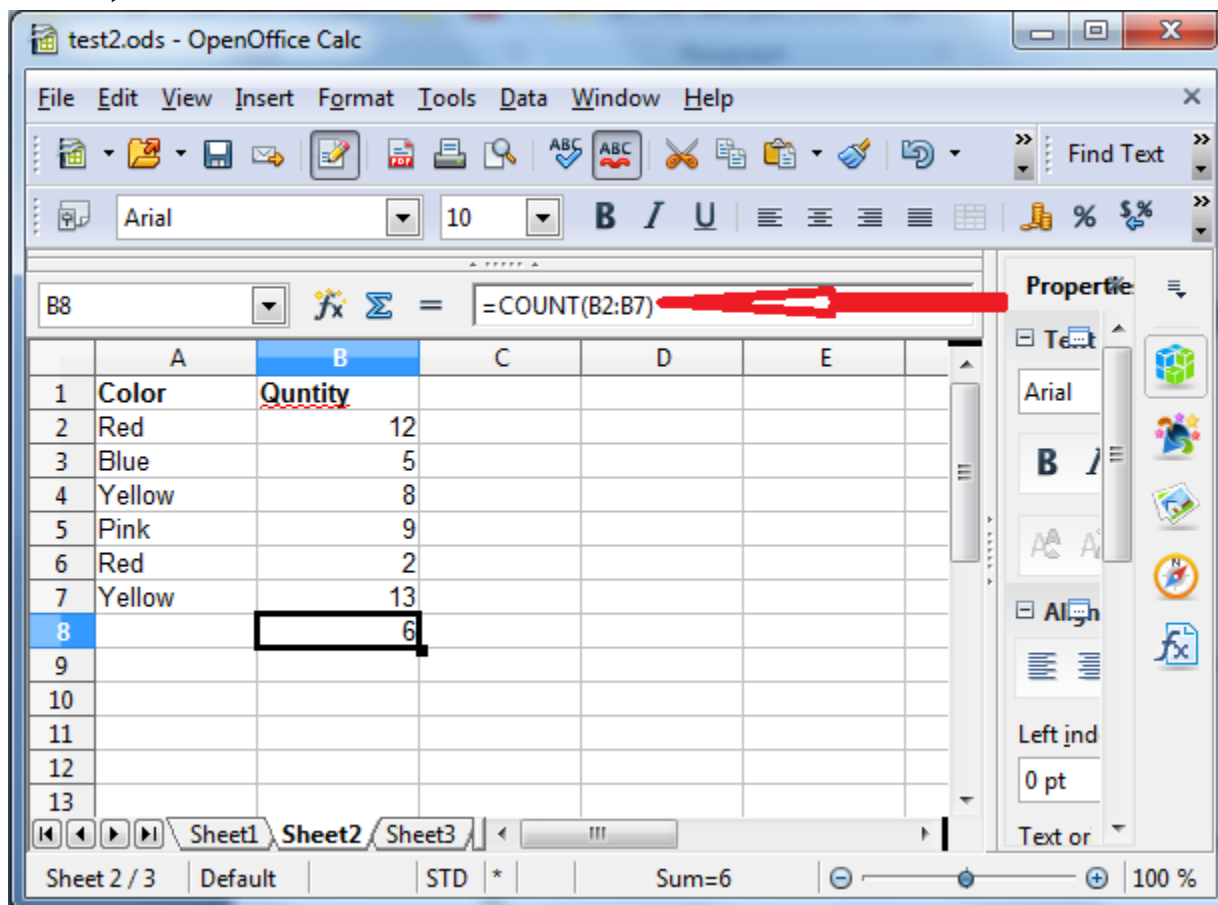
value1 to value30 are up to 30 values or ranges representing the values to be counted.

Examples:

a) COUNT(2; 4; 6; "eight")

returns 3, because 2, 4 and 6 are numbers ("eight" is text).

b)



c)COUNT(B1:B3)

where cells B1, B2, B3 contain 1.1, 2.2, and apple returns 2.

d)COUNT(B1:B3)

where cells B1, B2, B3 are empty, returns 0.

4)MAX

- Returns the maximum of a list of arguments, ignoring text entries.

Syntax:

MAX(number1; number2; ... number30)

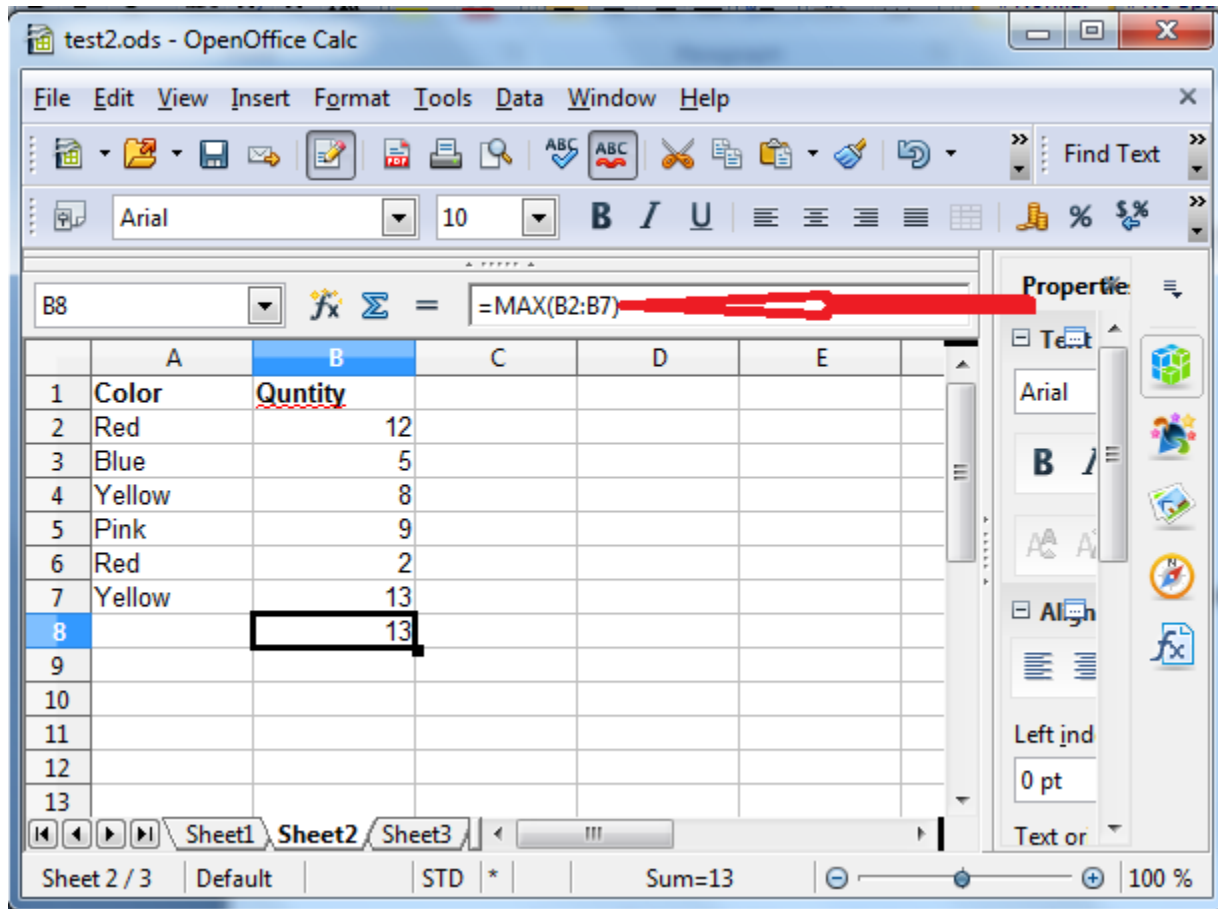
number1 to number30 are up to 30 numbers or ranges containing numbers.

Example:

a)MAX(2; 6; 4)

returns 6, the largest value in the list.

b)



c) MAX(B1:B3)

where cells B1, B2, B3 contain 1.1, 2.2, and apple returns 2.2.

Issues:

Calc assumes that logical values are 1 (TRUE) and 0 (FALSE).
Excel ignores logical values.

5)MIN

- Returns the minimum of a list of arguments, ignoring text entries.

Syntax:

MIN(number1; number2; ... number30)

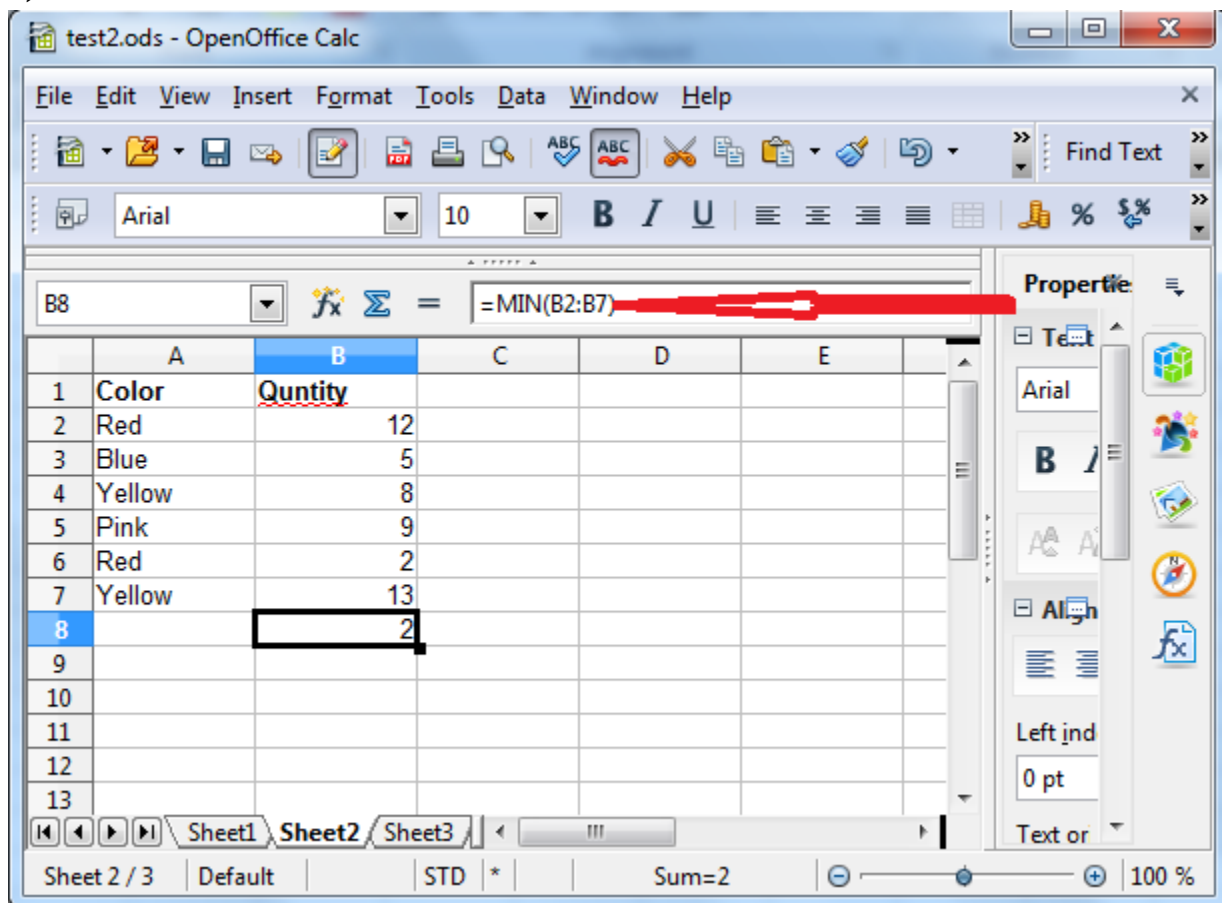
number1 to number30 are up to 30 numbers or ranges containing numbers.

Example:

a)MIN(2; 6; 4)

returns 2, the smallest value in the list.

b)



c)MIN(B1:B3)

where cells B1, B2, B3 contain 1.1, 2.2, and apple returns 1.1.

6)SUMIF

- Conditionally sums the contents of cells in a range.

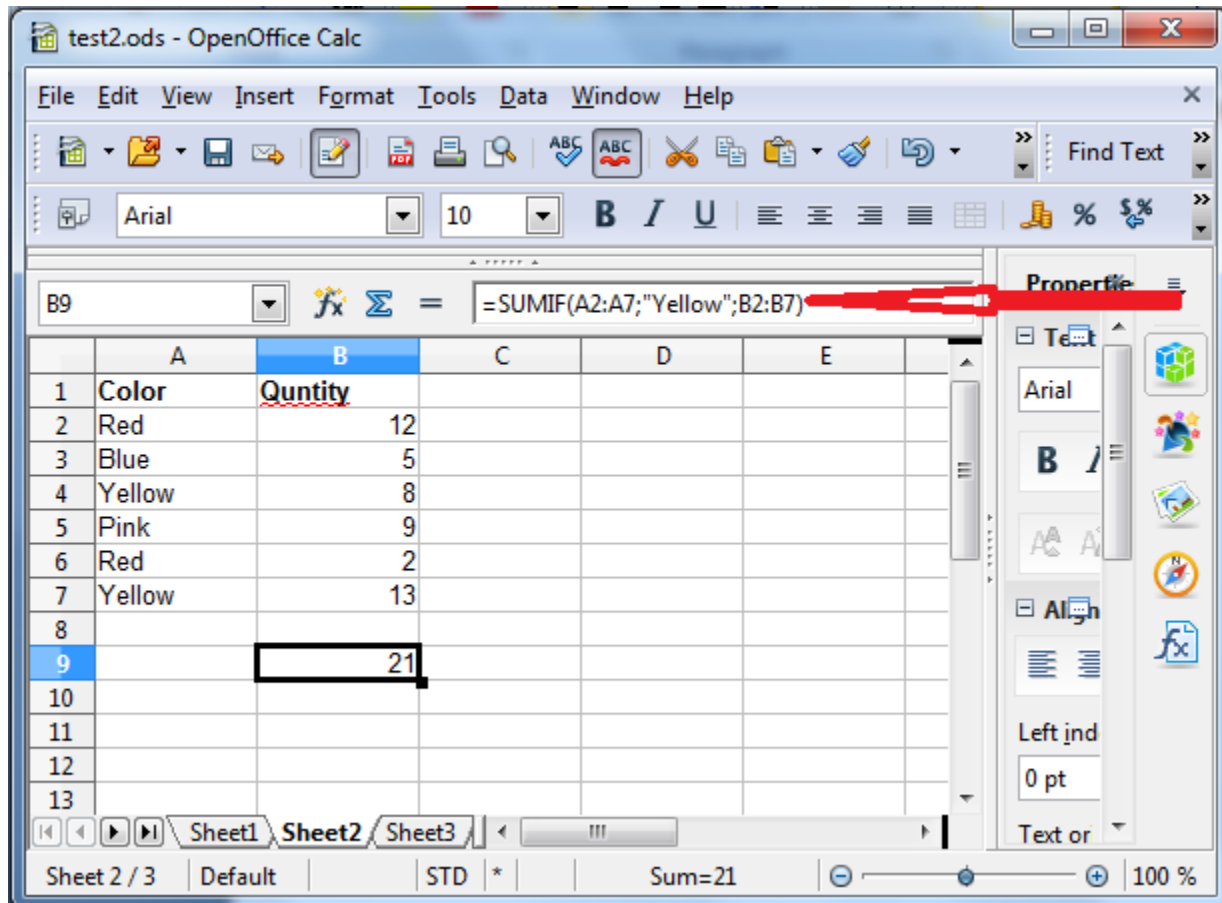
Syntax:

SUMIF(test_range; condition; sum_range)

- This function identifies those cells in the range test_range that meet the condition, and sums the corresponding cells in the range sum_range.
- If sum_range is omitted the cells in test_range are summed.
- condition may be:
 - a number, such as 34.5
 - an expression, such as 2/3 or SQRT(B5)
 - a text string

Example

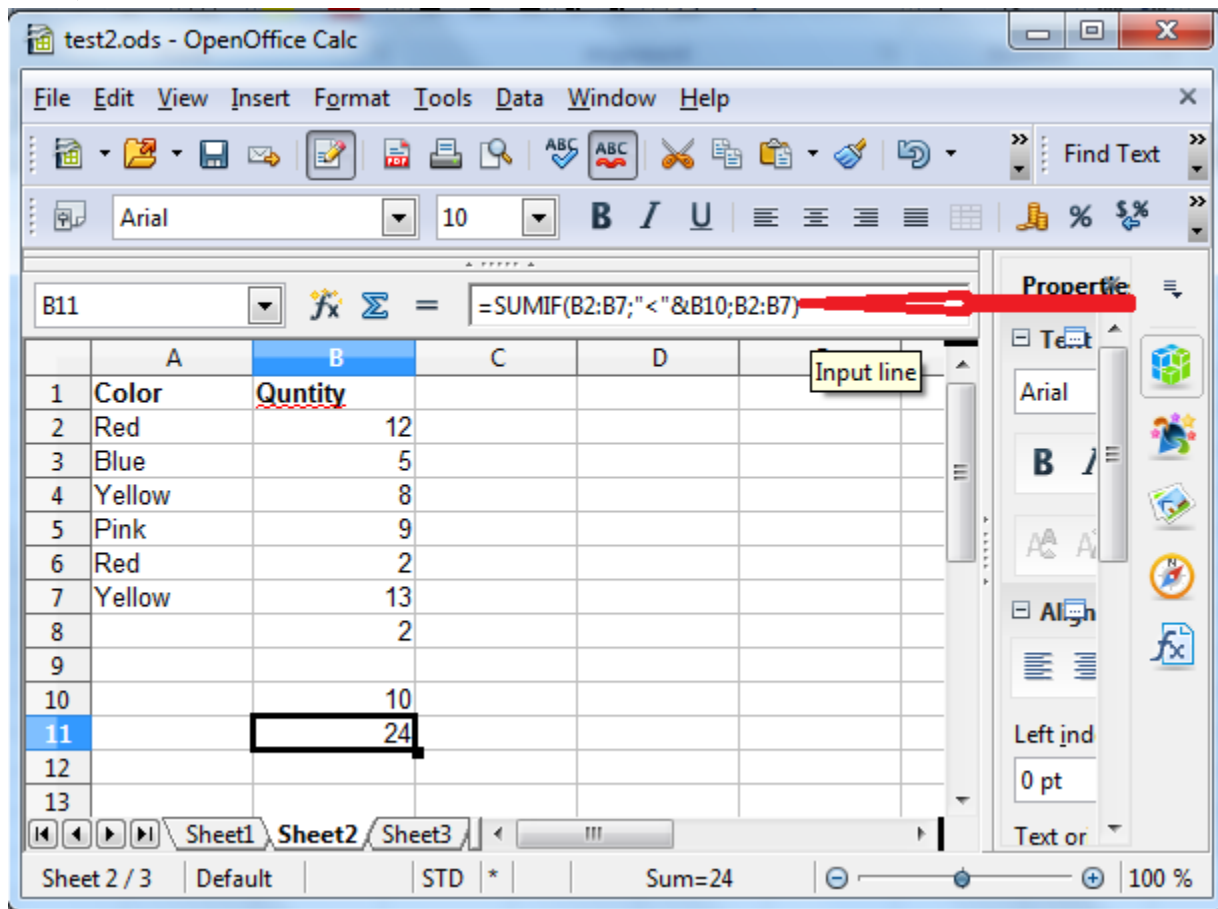
a)



b) SUMIF(A1:A9;"<0")

- returns the sum of the negative numbers in A1:A9.
- SUMIF(A1:A9; F1)
- where F1 contains the text `>=0` (without double quotes)
returns the sum of the positive numbers in A1:A9.

c)



7)PMT

- The PMT function calculates the payment for a loan based on constant payments and a constant interest rate.

Syntax:

PMT(rate; numperiods; principal; finalbalance; type)

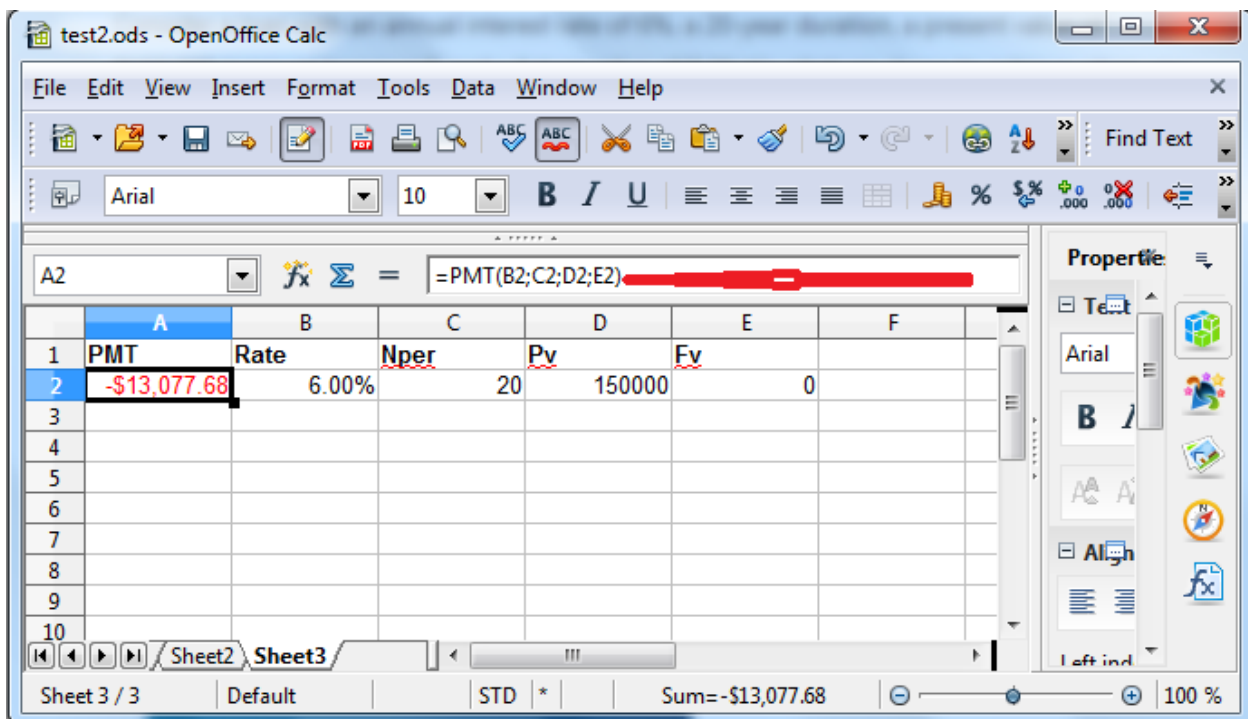
- rate: the interest rate per period.
- numperiods: the total number of payment periods in the term.
- principal: the initial sum borrowed.

- **finalbalance:** the cash balance you wish to attain at the end of the term (optional - defaults to 0). With a loan, this would normally be 0.
- **type:** when payments are made (optional - defaults to 0):
- 0 - at the end of each period.
- 1 - at the start of each period (including a payment at the start of the term).

Example:

a) Consider a loan with an annual interest rate of 6%, a 20-year duration, a present value of 150,000rs (amount borrowed) and a future value of 0 (that's what you hope to achieve when you pay off a loan).

1. The PMT function below calculates the annual payment.

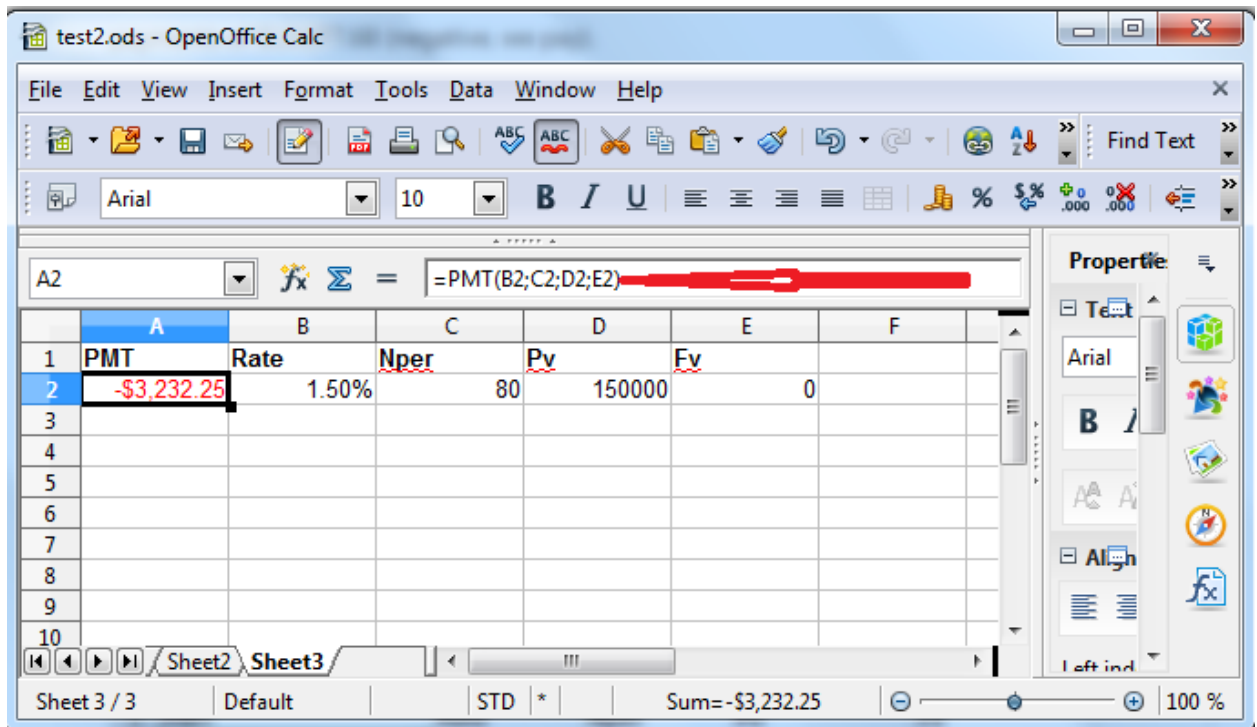


- if the fifth argument is omitted, it is assumed that payments are due at the end of the period.

- We pay off a loan of \$150,000 (positive, we received that amount) and we make annual payments of \$13,077.68 (negative, we pay).

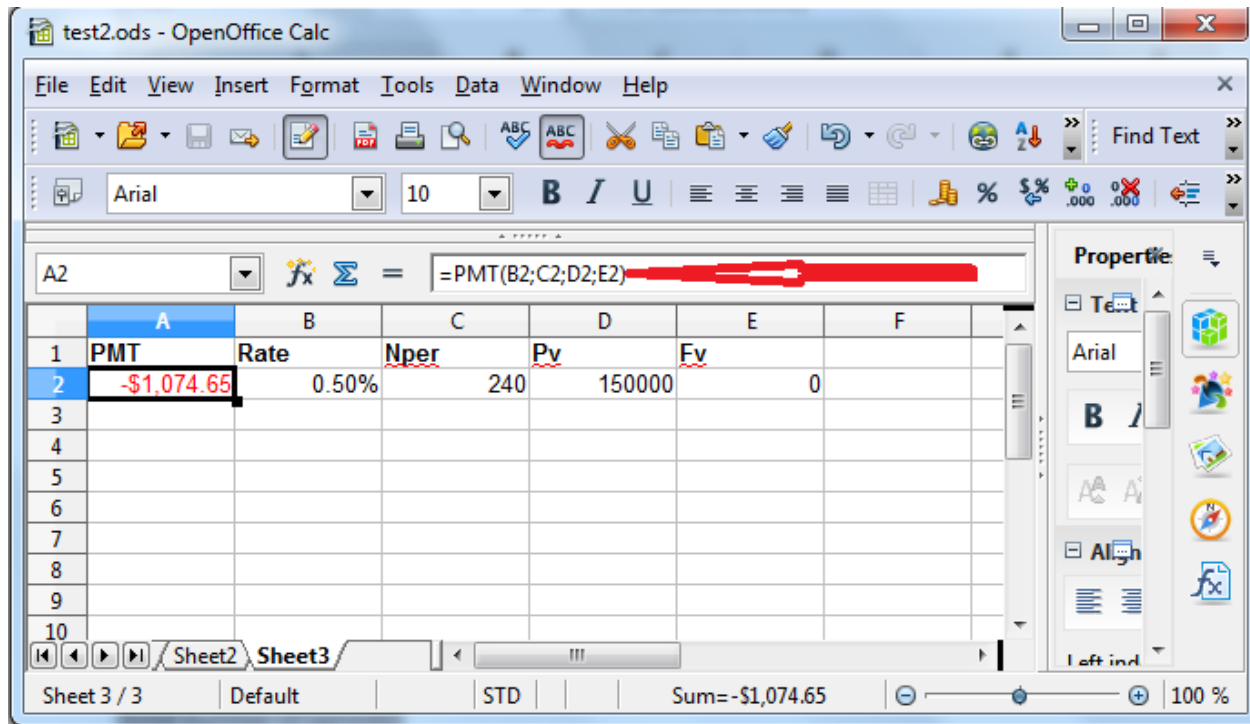
2. The PMT function below calculates the quarterly payment.

we make quarterly payments, so we use $6\%/4 = 1.5\%$ for Rate and $20*4 = 80$ for Nper (total number of periods).



3. The PMT function below calculates the monthly payment.

we make monthly payments, so we use $6\%/12 = 0.5\%$ for Rate and $20*12 = 240$ for Nper (total number of periods).



8)STDEV

- STDEV function returns the standard deviation for data that represents a sample

Syntax:

STDEV(number1; number2; ... number30)

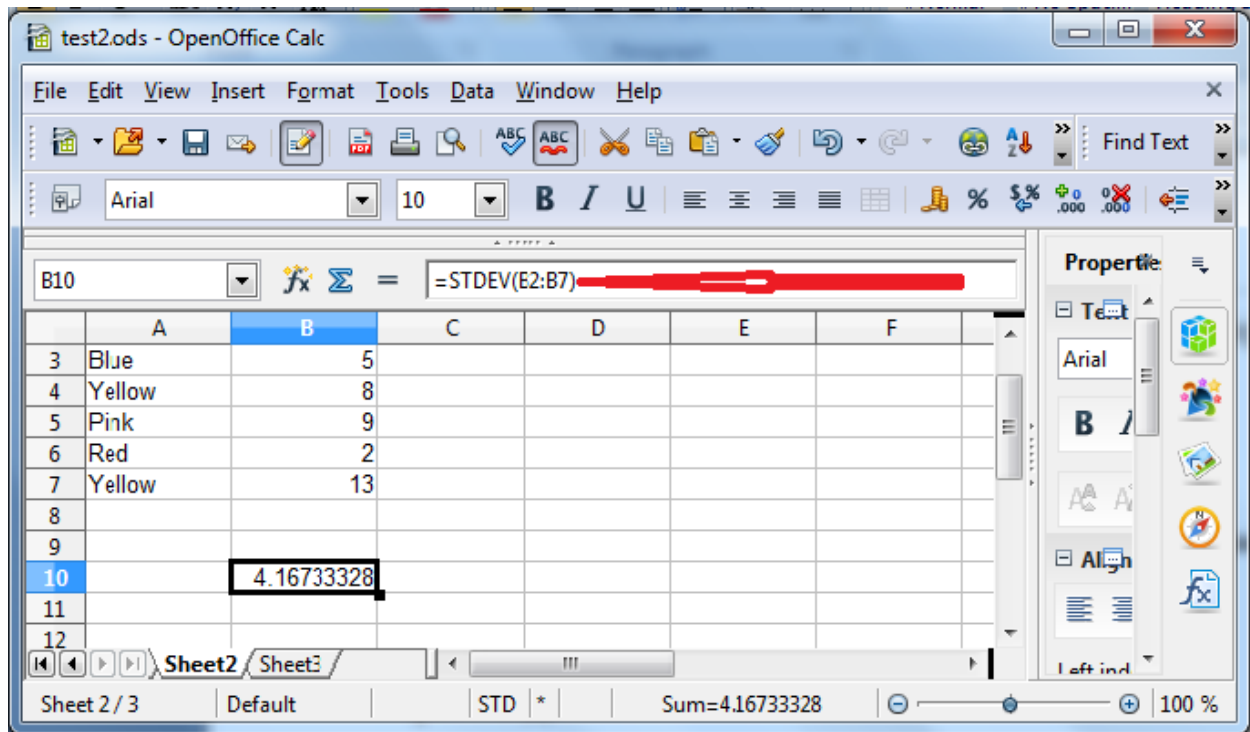
number1 to number30 are up to 30 numbers or ranges containing numbers.

STDEV returns the standard deviation where number1 to number30 are a sample of the entire population. With N values in the sample, the calculation formula is:

$$\sqrt{\frac{1}{N-1} \sum_{i=1}^N (x_i - \bar{x})^2}$$

Example:

a)



b) STDEV(2; 6; 4)

returns 2.

2.2.2 Logical functions

- The logical functions operate on logical ('boolean') values, that is, TRUE or FALSE.

1) AND

AND function returns TRUE if all conditions are TRUE. It returns FALSE if any of the conditions are FALSE.

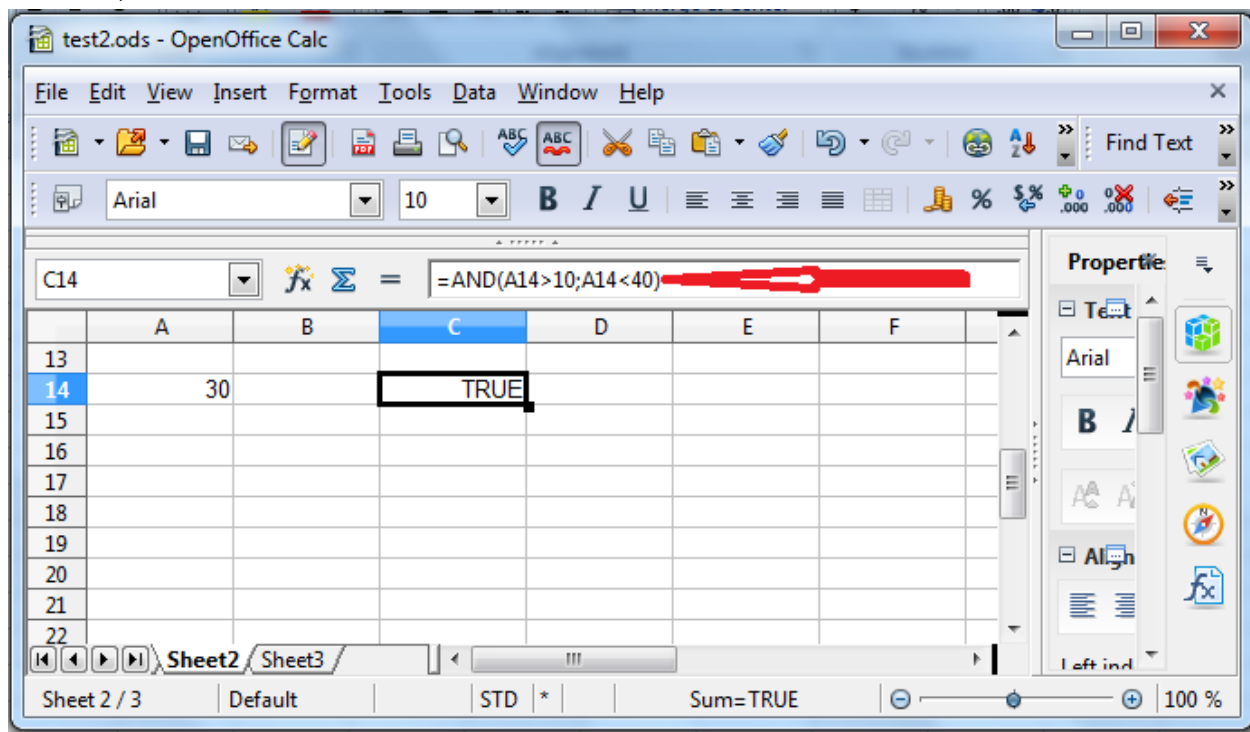
Syntax:

AND(argument1; argument2 ...argument30)

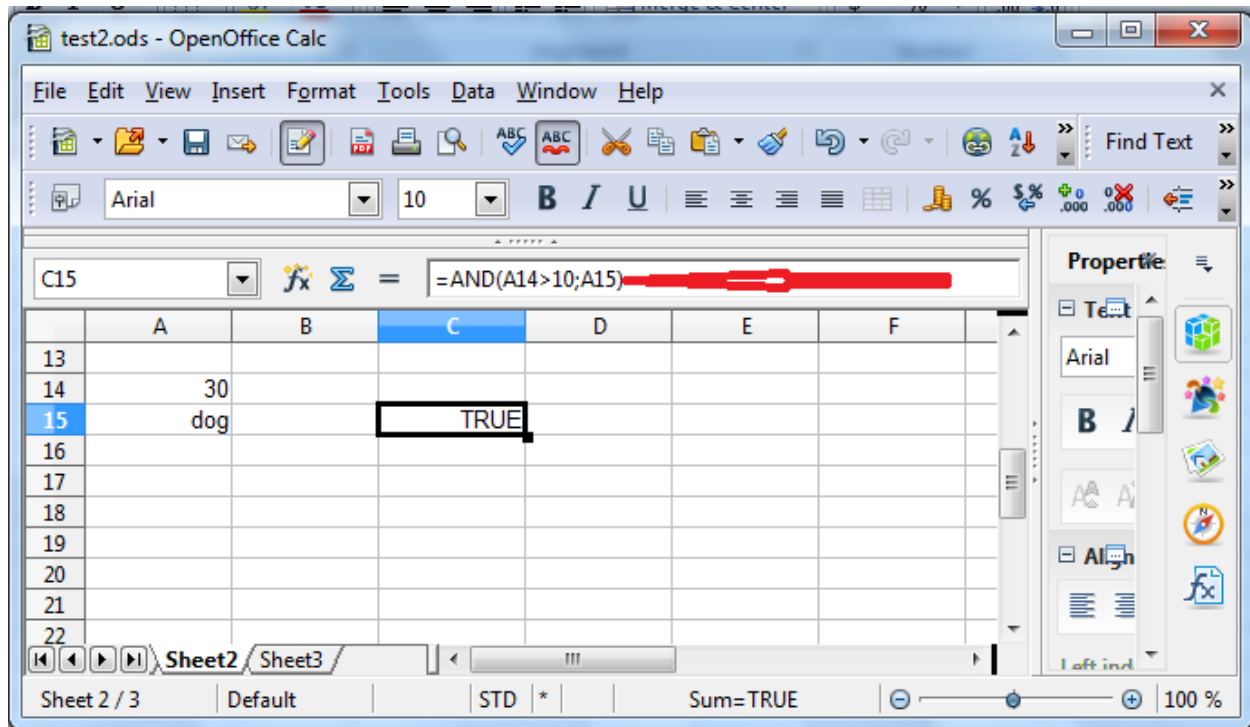
- argument1 to argument30 are up to 30 arguments, each of which may be a logical result or value, or a reference to a cell or range.
- AND tests every value (as an argument, or in each referenced cell), and returns TRUE if they are all TRUE.
- Any value which is a non-zero number or text is considered to be TRUE.

Example:

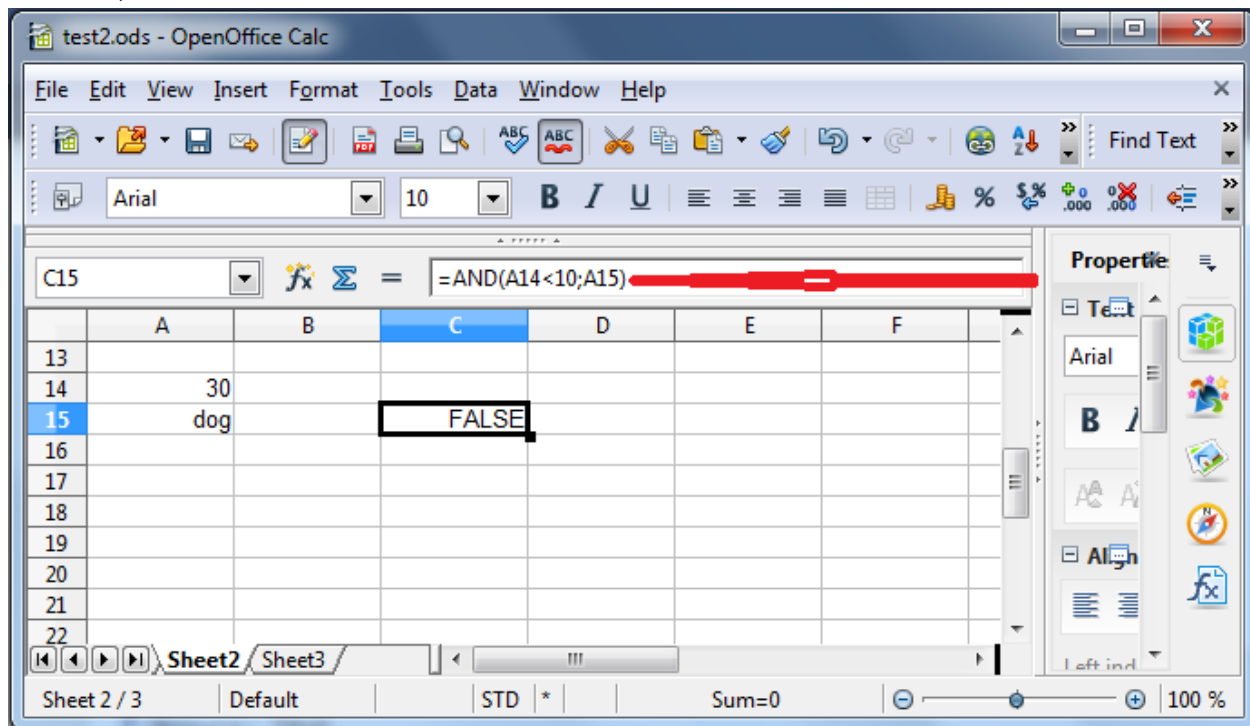
a)



b)Text is considered “TRUE”



c)



2)OR

- OR function returns TRUE if any of the conditions are TRUE . It returns FALSE if all the conditions are FALSE

Syntax:

OR(argument1; argument2 ...argument30)

- argument1 to argument30 are up to 30 arguments, each of which may be a logical result or value, or a reference to a cell or range.
- OR tests every value (as an argument, or in a each referenced cell), and returns TRUE if any of them are TRUE.
- Any non-zero number is considered to be TRUE. Any text cells in ranges are ignored.

Example:

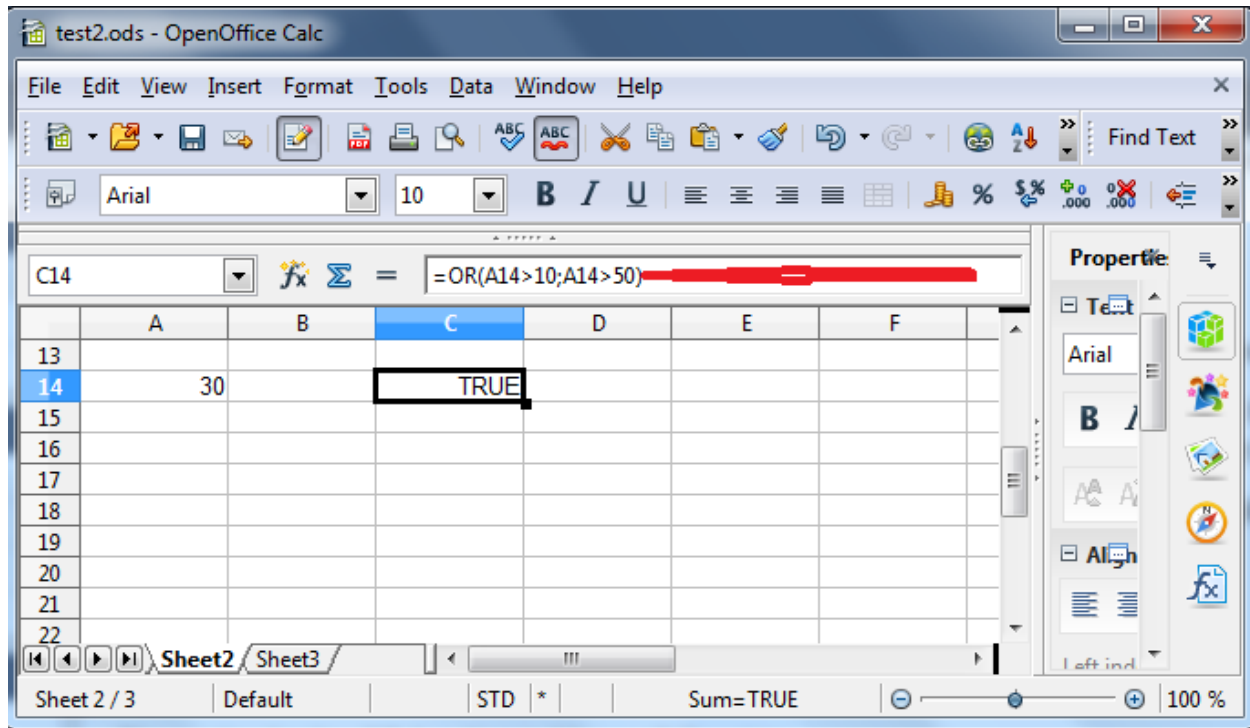
a)OR(TRUE; FALSE)

returns TRUE.

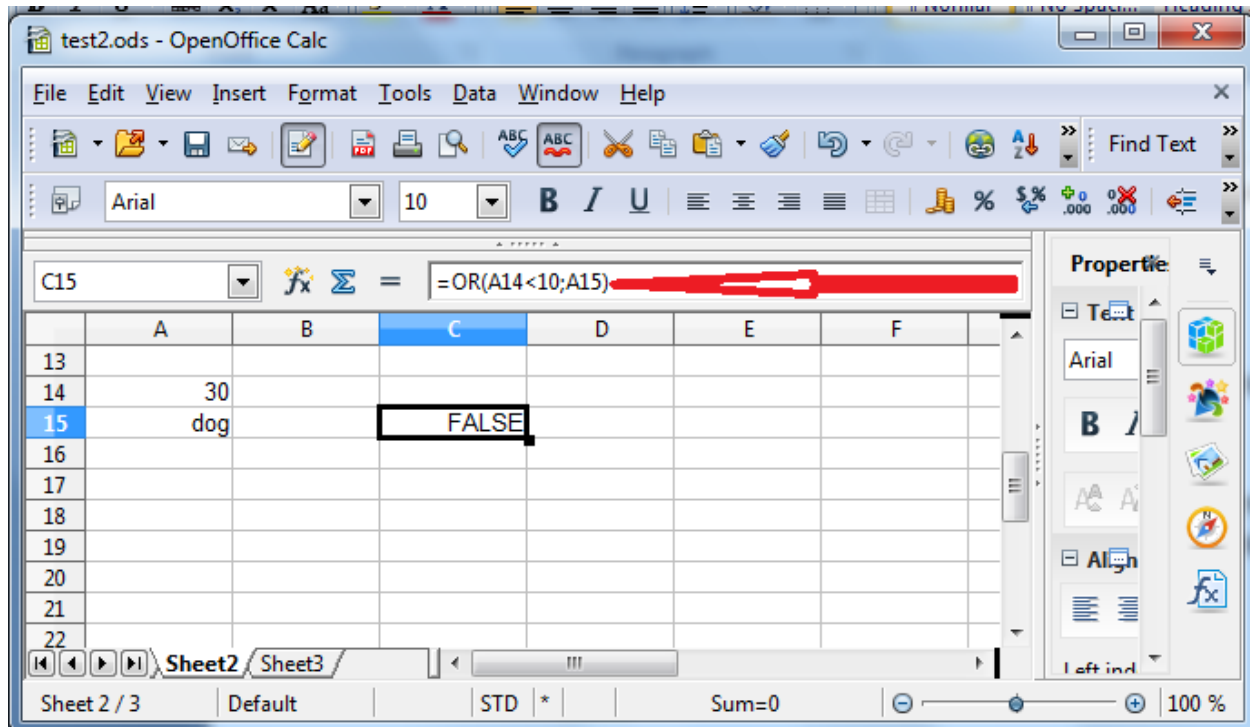
b)OR(0; 5)

returns TRUE, because 5 is considered TRUE.

c)



d) Here text is "IGNORED".



3)NOT

- Reverses the logical value. Returns TRUE if the argument is FALSE, and FALSE if the argument is TRUE.

Syntax:

NOT(logical_value)

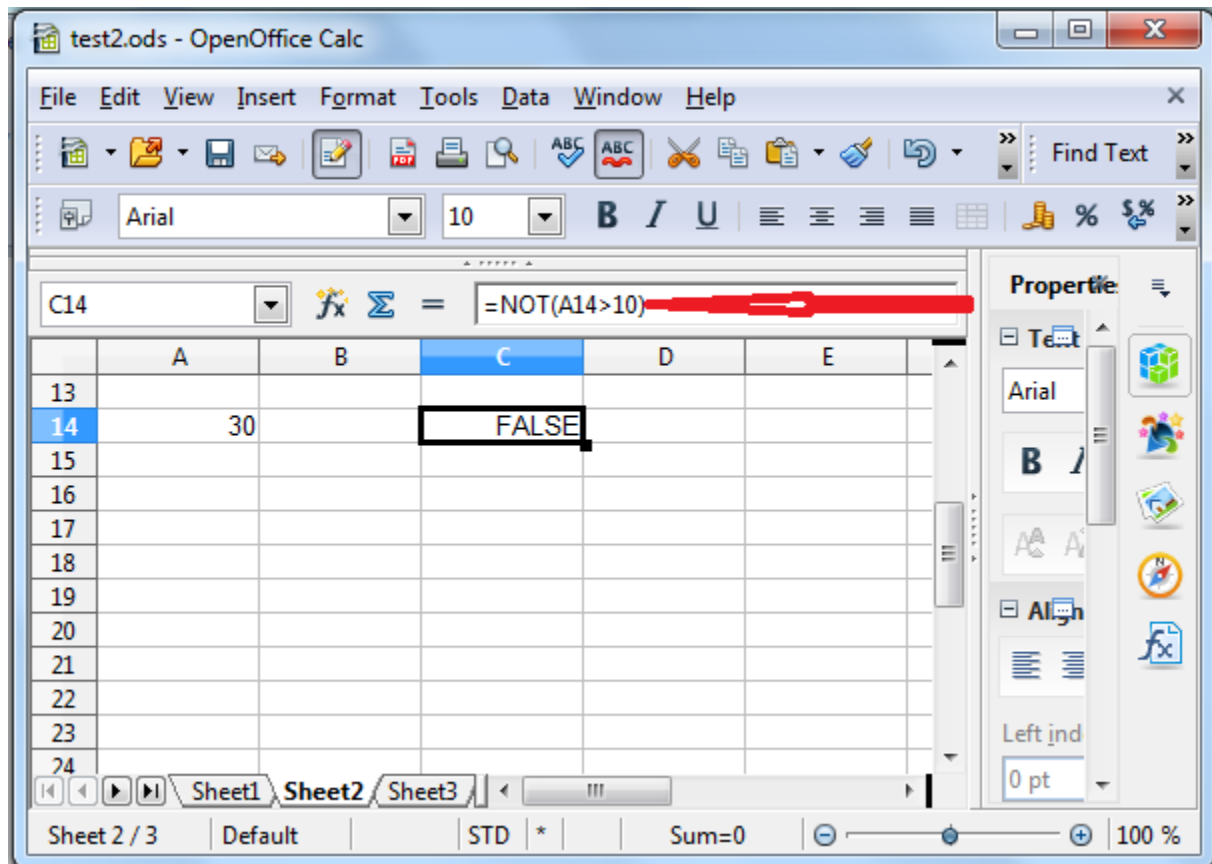
where logical_value is the logical value to be reversed.

Example:

a)NOT(TRUE())

returns FALSE

b)



4)TRUE

- Returns the logical value TRUE.

Syntax:

TRUE()

The TRUE() function has no arguments, and always returns the logical value TRUE.

Example:

a)TRUE()

returns TRUE

b)NOT(TRUE())

returns FALSE

5)FALSE

- Returns the logical value FALSE.

Syntax:

FALSE()

The FALSE() function has no arguments, and always returns the logical value FALSE.

Example:

a)FALSE()

returns FALSE

b)NOT(FALSE())

returns TRUE

6)IF

- Returns one of two values, depending on a test condition.

Syntax:

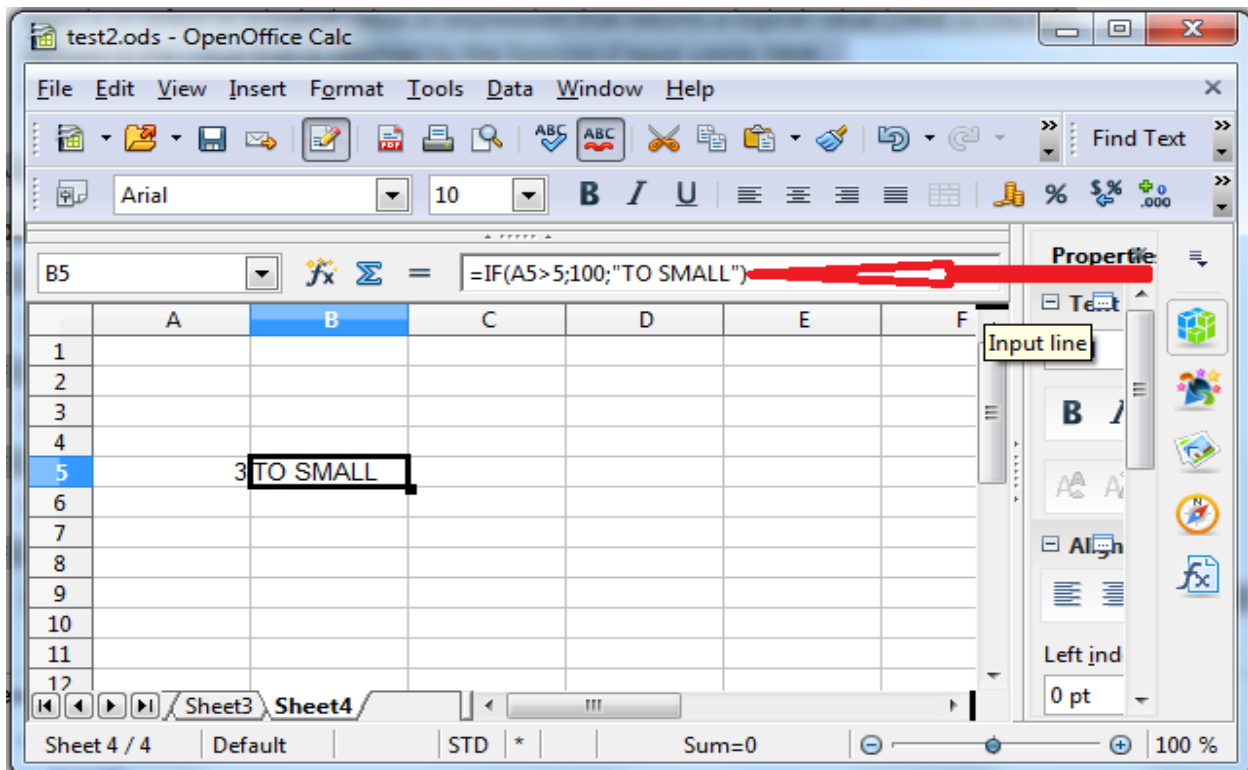
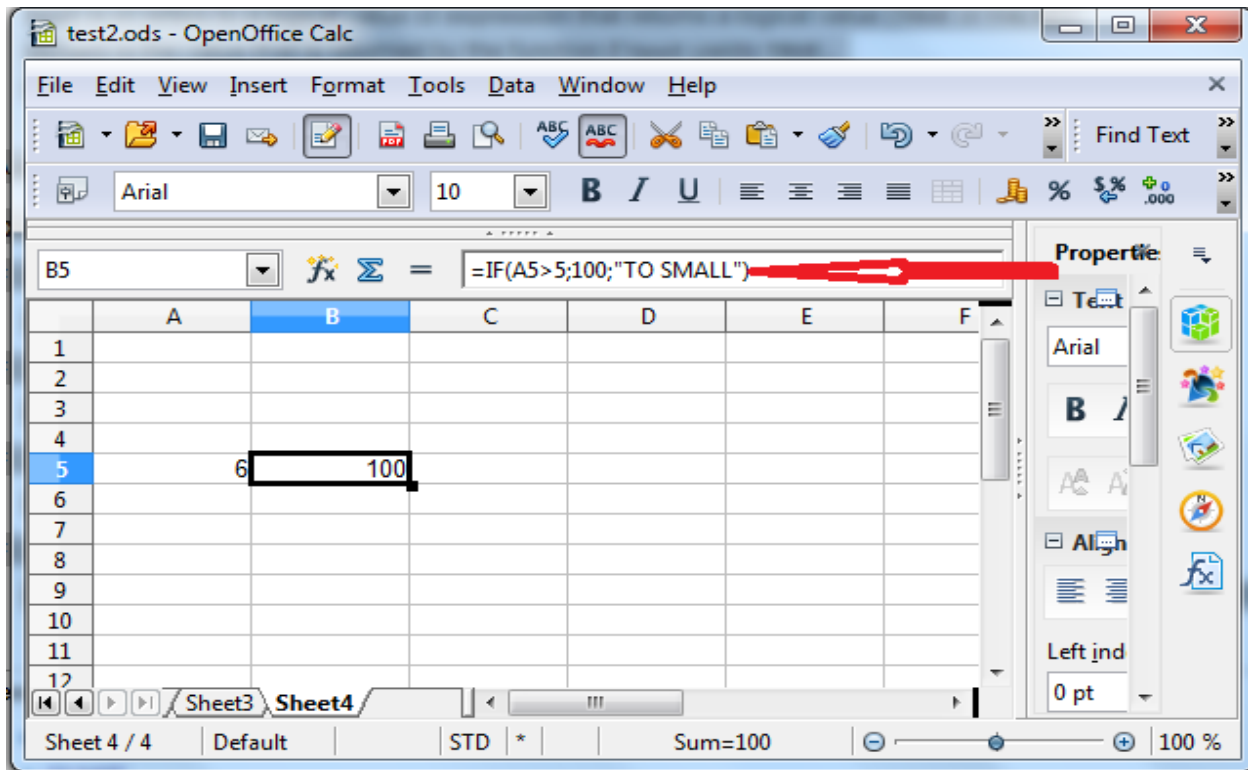
IF(test; value1; value2) where:

- test is or refers to a logical value or expression that returns a logical value (TRUE or FALSE).
- value1 is the value that is returned by the function if test yields TRUE.
- value2 is the value that is returned by the function if test yields FALSE.
- If value2 is omitted it is assumed to be FALSE; if value1 is also omitted it is assumed to be TRUE.

Example:

a)IF(A1>5; 100; "too small")

returns the number 100 if A1 is greater than 5, and the text "too small" otherwise.



b)IF(1>2; "nonsense")

returns FALSE - because value2 has been omitted and 1 is not greater than 2.

c)IF(2>1)

returns TRUE - because both value1 and value2 have been omitted and 2 is more than 1.

d)IF(1=2; 1/0; SQRT(4))

returns 2, the square root of 4. IF() only calculates the value chosen - in this case 1/0 would give a #DIV/0! error, but is not calculated.

2.2.3 Date and Day Function:-

1)DATE

- returns the date, given the year, month and day of the month.

Syntax:

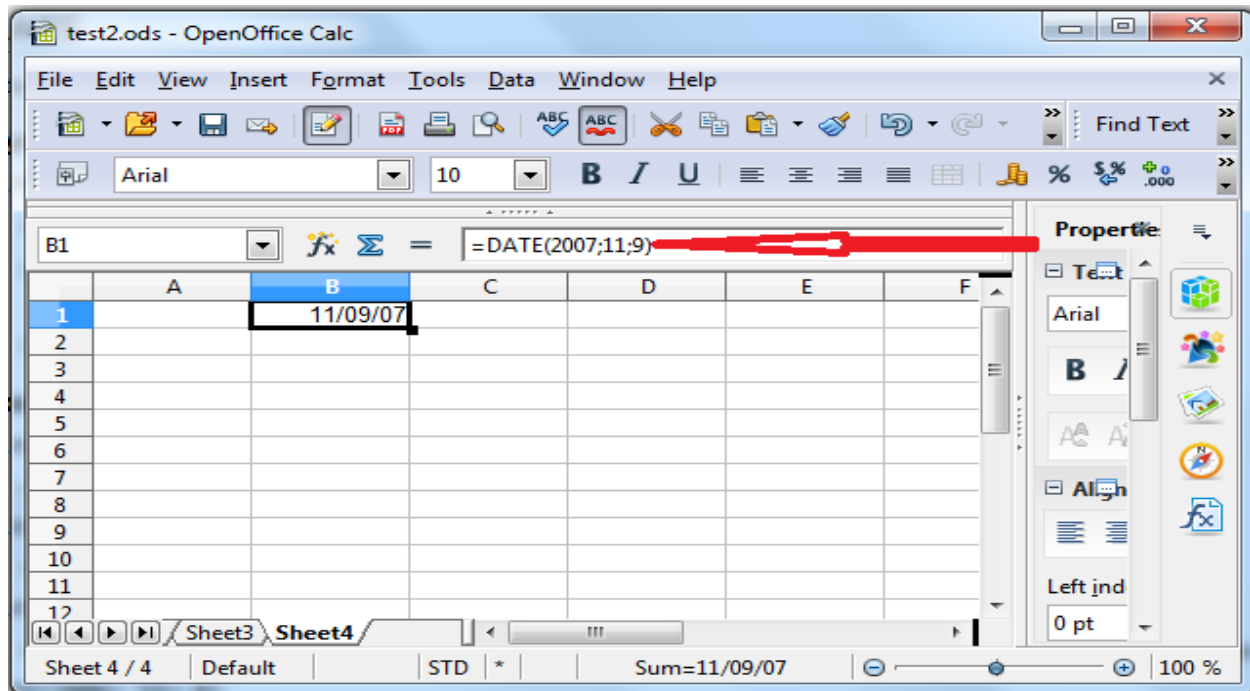
DATE(year; month; day)

- returns the date, expressed as a date-time serial number.
- year is an integer between 1583 and 9956 or between 0 and 99; month and day are integers.
- If month and day are not within range for a valid date, the date will 'roll over', as shown below.

Example:

a)DATE(2007; 11; 9)

returns the date 9th November 2007 (as a date-time serial number).



b)DATE(2007; 12; 32)

returns 1st January 2008 - the date rolls over, as 32nd December 2007 is not valid.

c)DATE(2004; 3; 0)

returns 29th February 2004 - the date rolls over backwards, as 0th March 2004 is not valid. 2004 was a leap year.

d)DATE(2006; 15; 8)

returns 8th March 2007 - the date rolls over, as there are only 12 months in a year

2)DAY

- Returns the day of a given date.

Syntax:

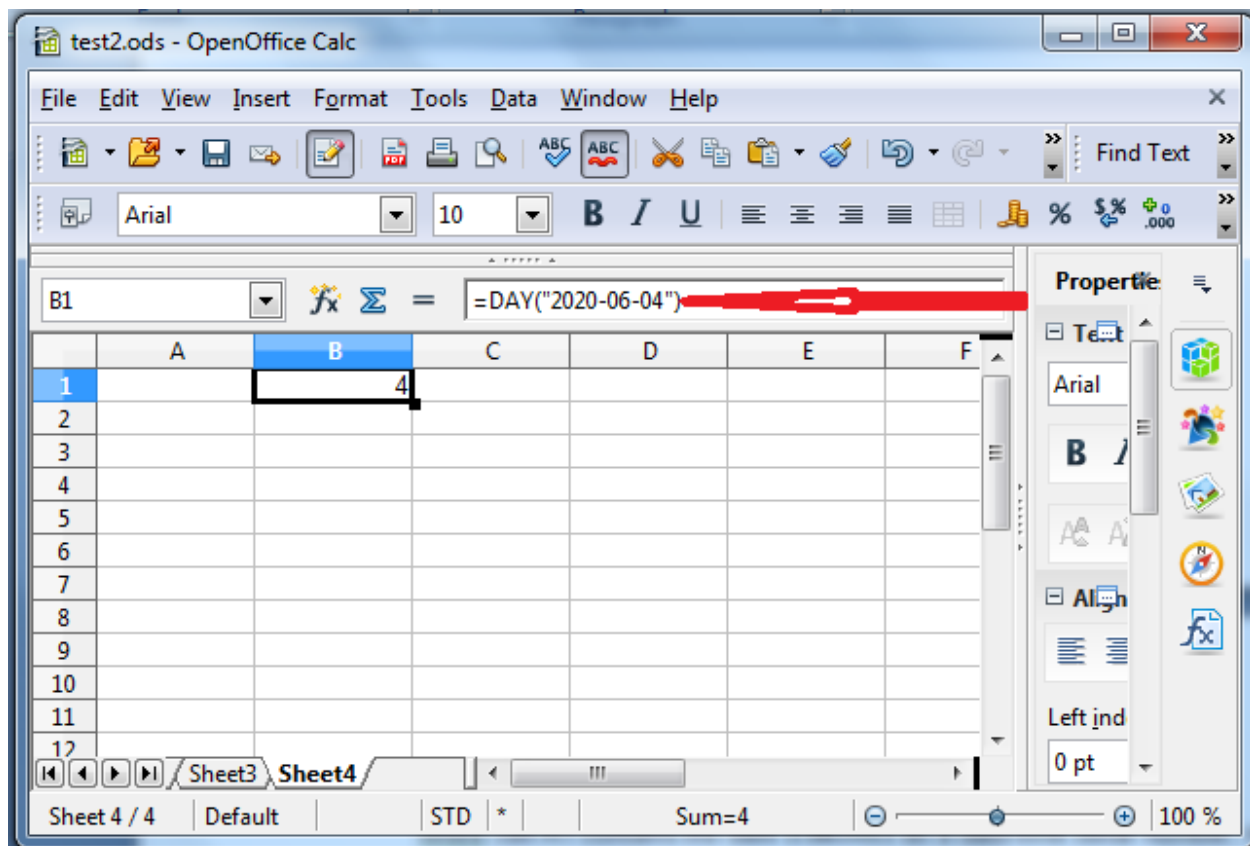
DAY(date)

- returns the day of date as a number (1-31).
- date may be text or a date-time serial number.

Example:

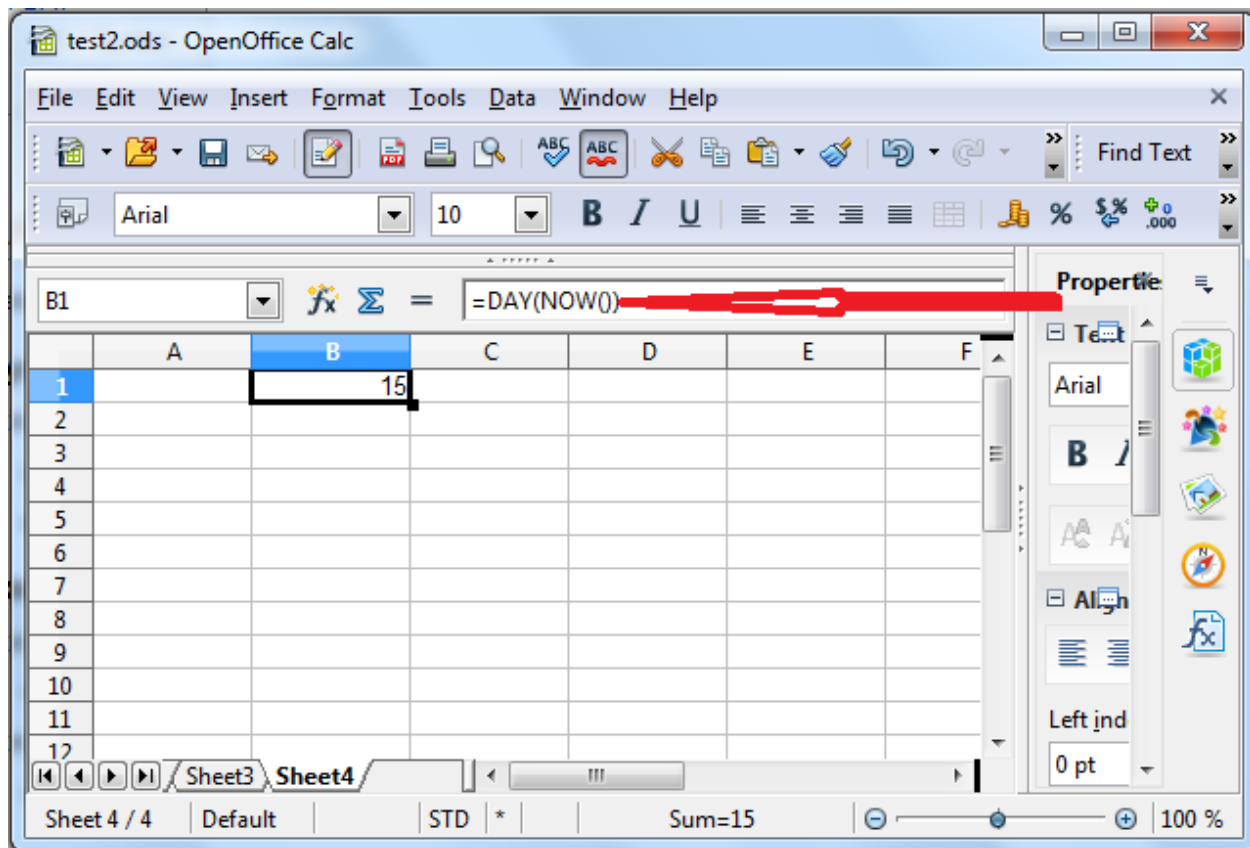
a)DAY("2020-06-04")

returns 4.



b)DAY(B1)

where cell A1 contains the date today's date 15 september 2020 returns 15.



3)TODAY

- Returns the current date

Syntax:

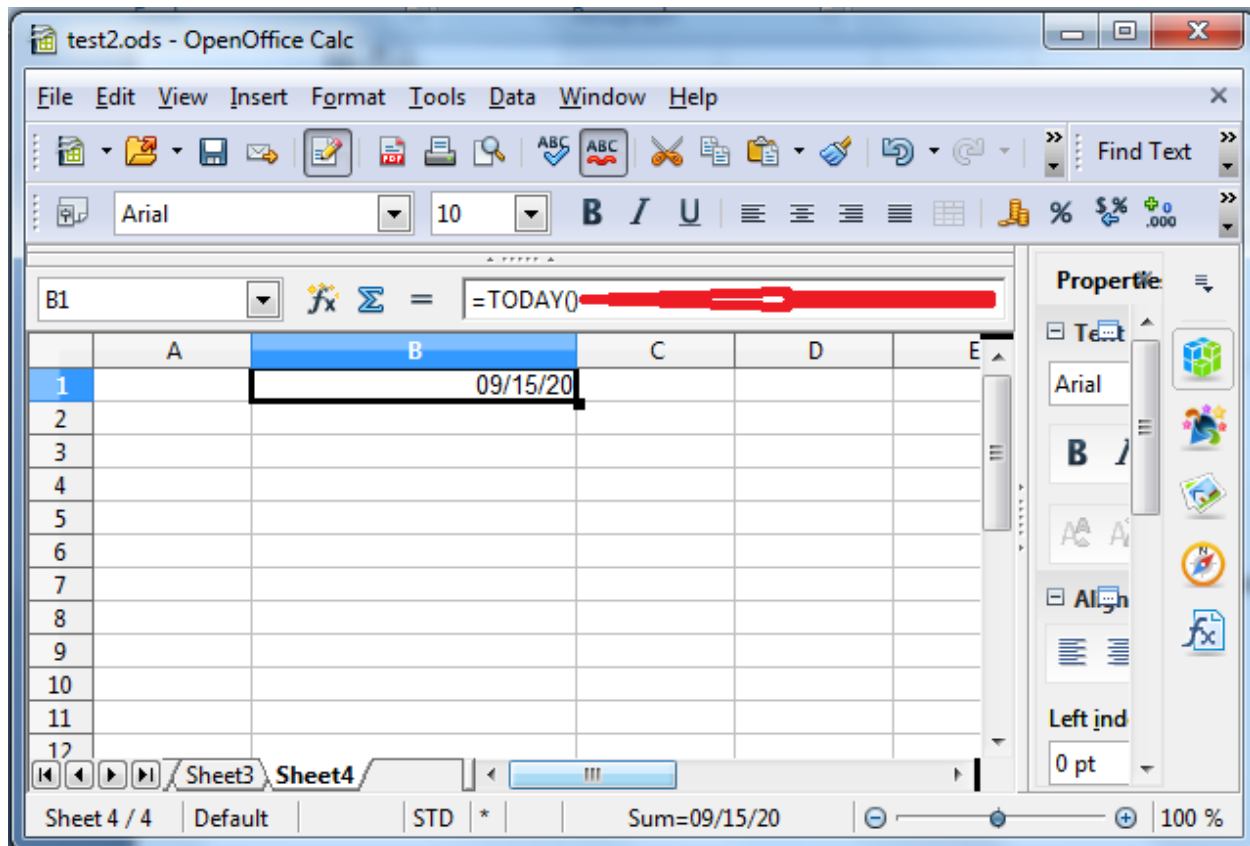
TODAY()

- returns the current date (as a date-time serial number).

- TODAY is updated at every recalculation, for instance if a cell is modified.

Example:

a) TODAY()



4) NOW

- Returns the current date and time

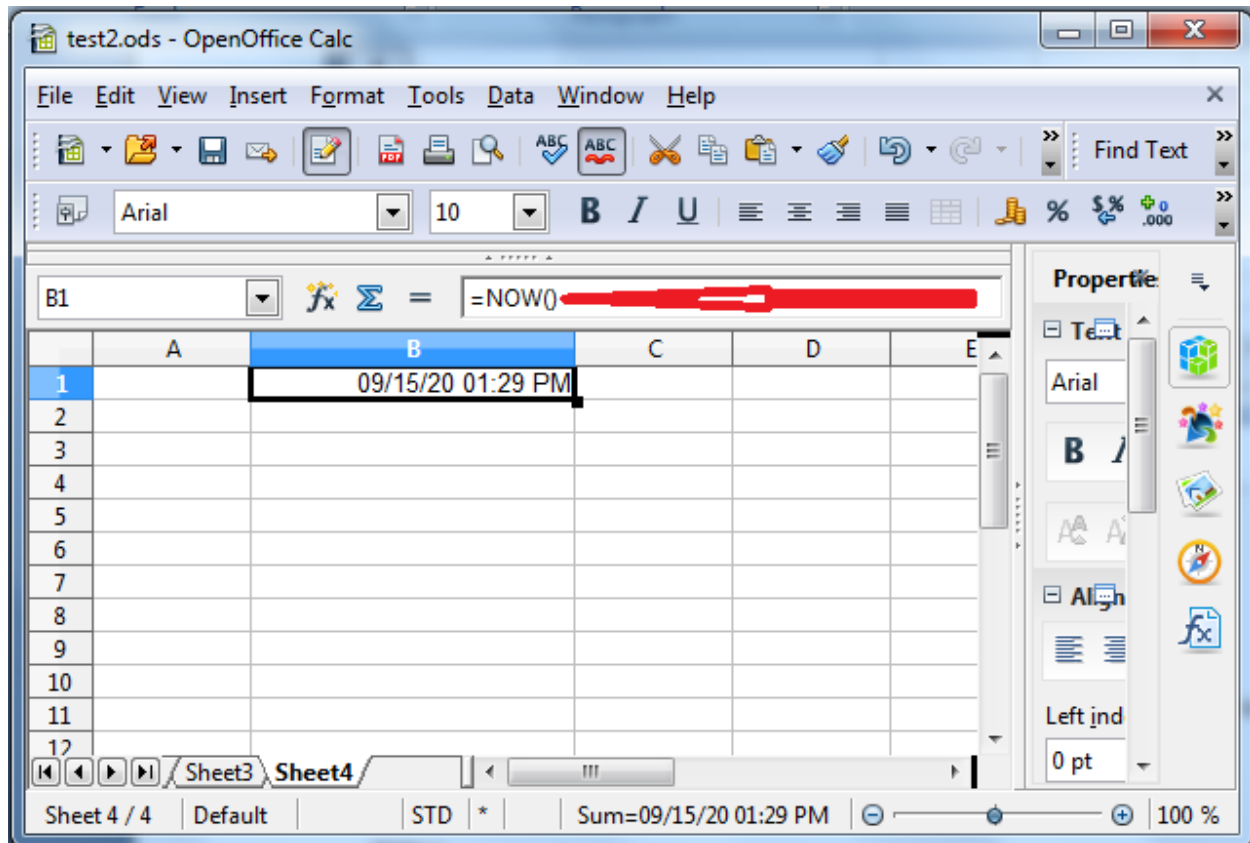
Syntax:

NOW()

- returns the current date and time (as a date-time serial number).
- NOW is updated at every recalculation, for instance if a cell is modified.

Example:

NOW()

**5) HOUR**

- Returns the hour of a given time.

Syntax:

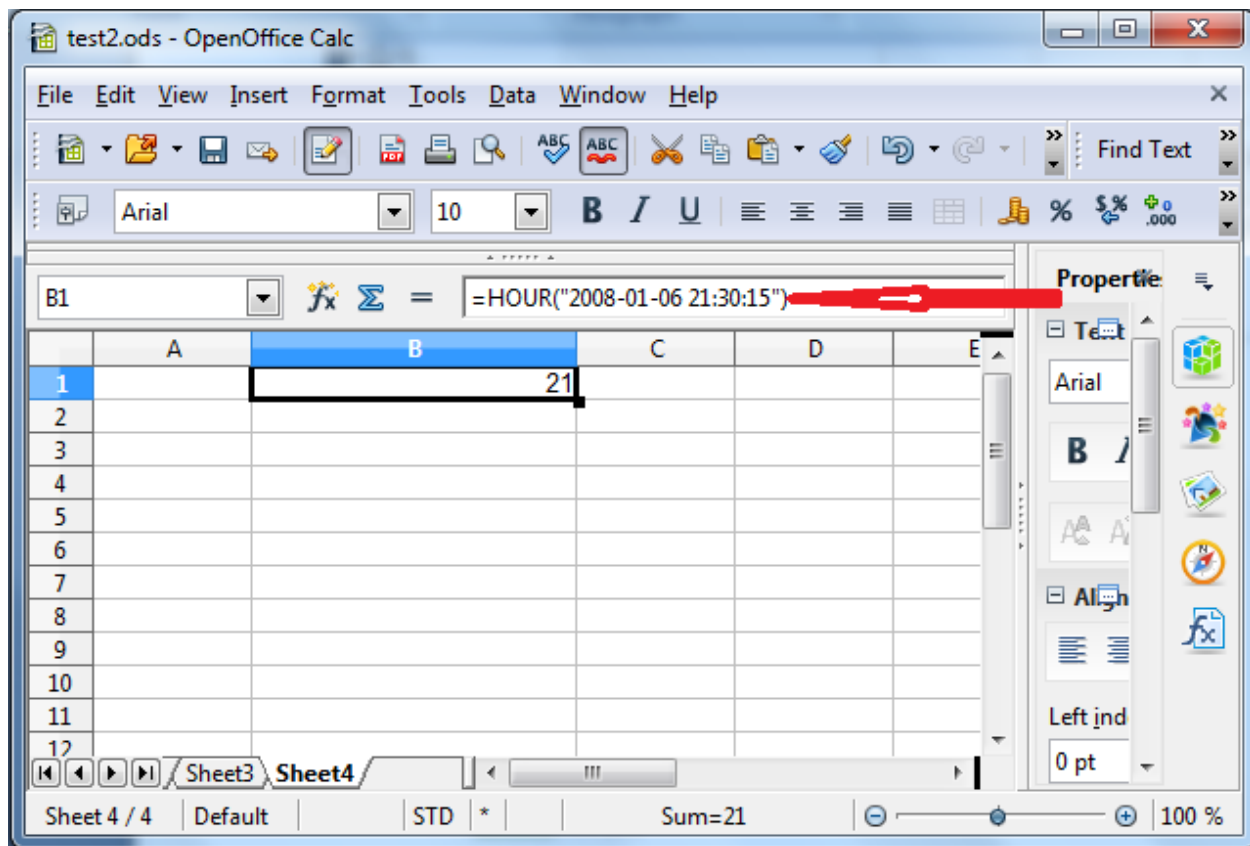
HOUR(time)

- returns the hour of time as a number, 0 - 23.
- time may be text or a date-time serial number.

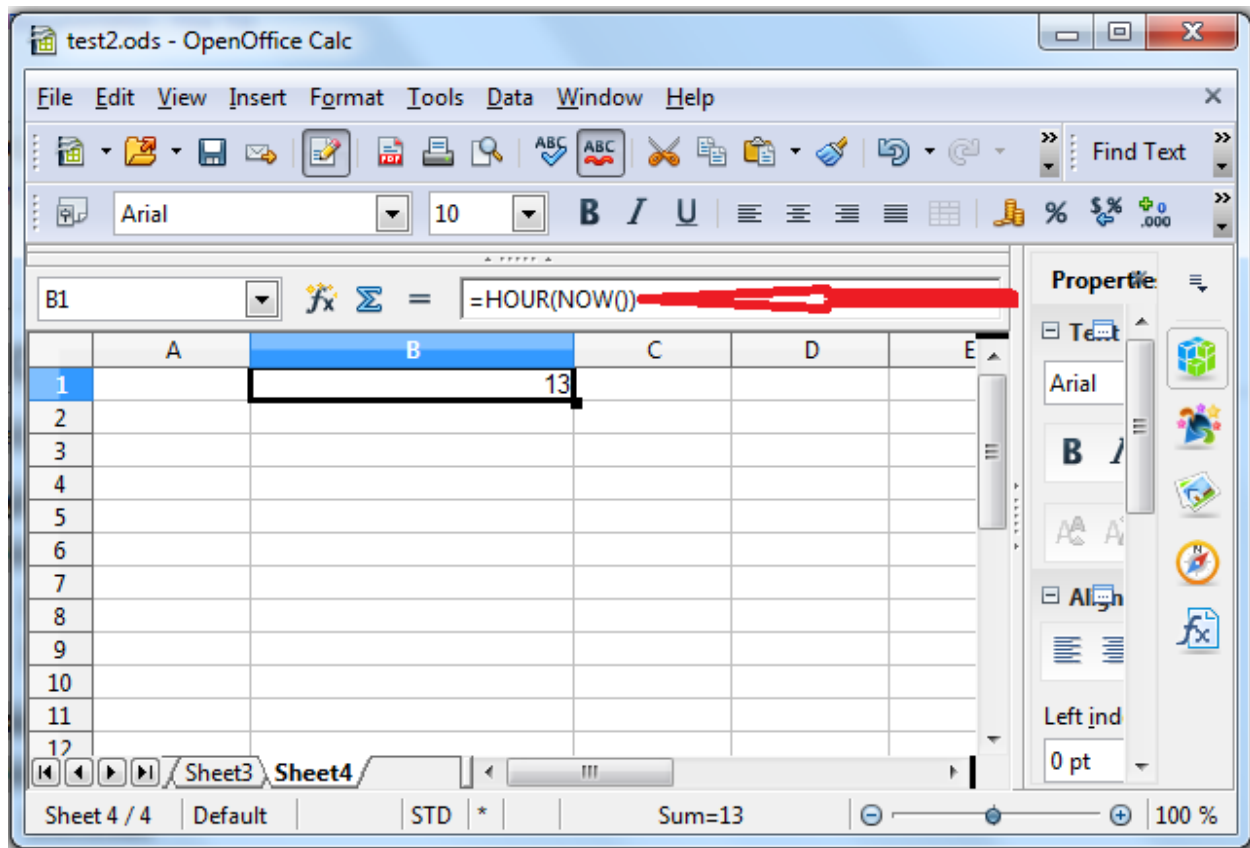
Example:

1) HOUR("2008-01-06 21:30:15")

returns 21.



2) HOUR(NOW())



6) MINUTE

- Returns the minutes of a given time.

Syntax:

MINUTE(time)

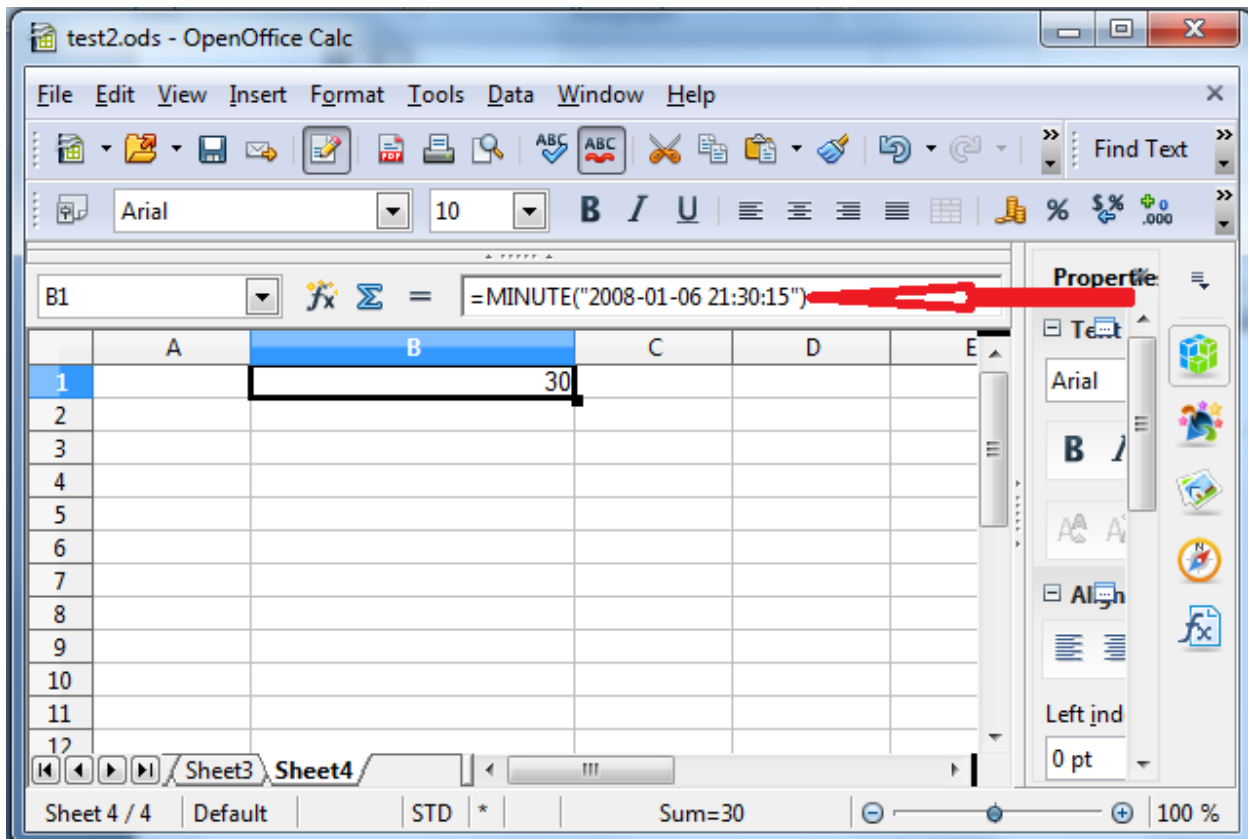
returns the minutes of time as a number, 0 - 59.

time may be text or a date-time serial number.

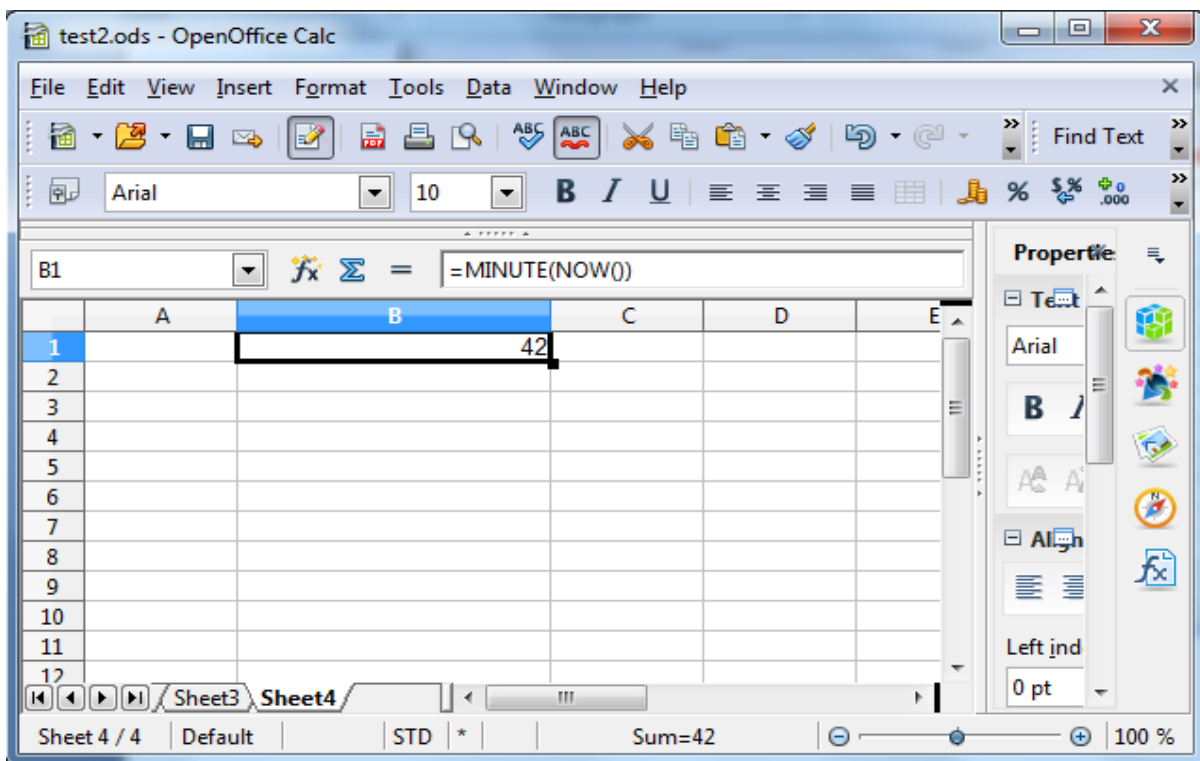
Example:

1) MINUTE("2008-01-06 21:30:15")

returns 30.



2)MINUTE(NOW())



7)SECOND

- Returns the seconds of a given time.

Syntax:

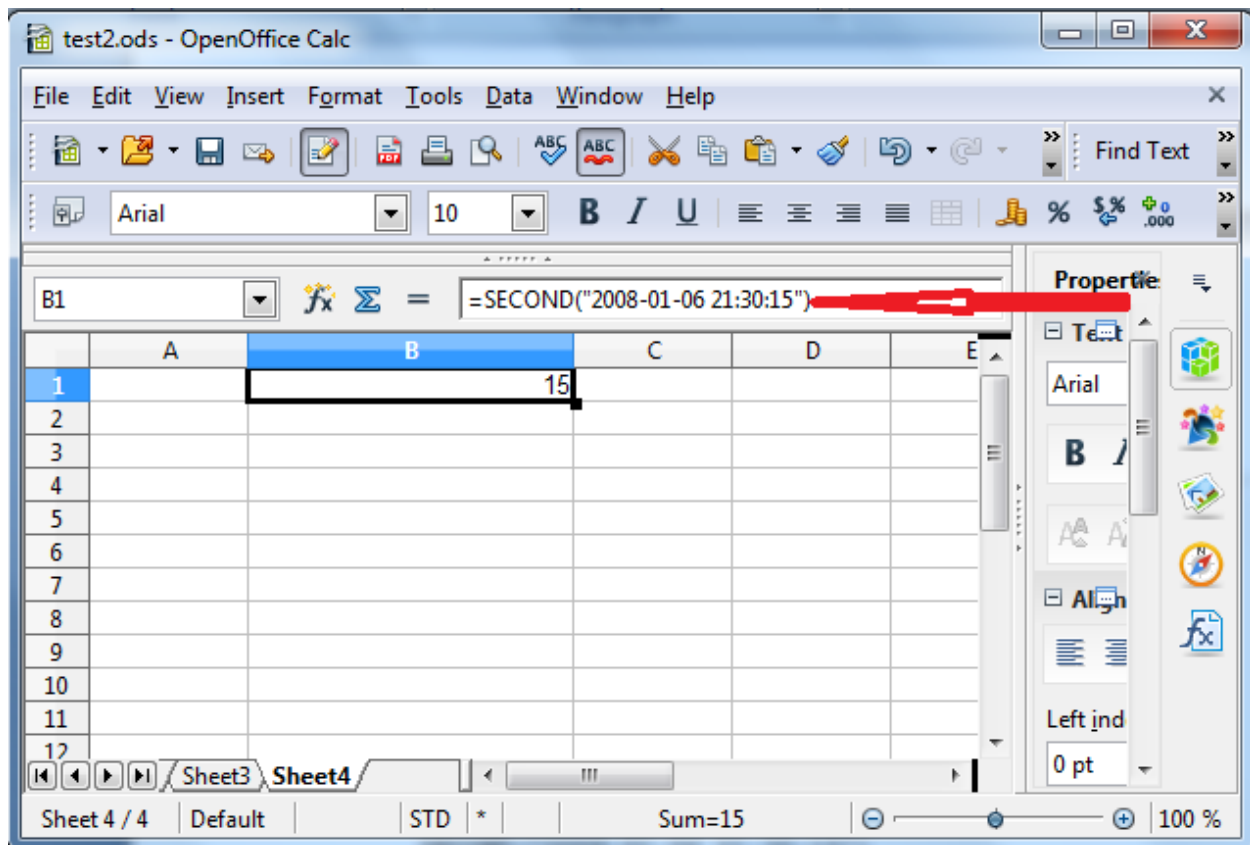
SECOND(time)

- returns the seconds of time as a number, 0 - 59.
- time may be text or a date-time serial number.

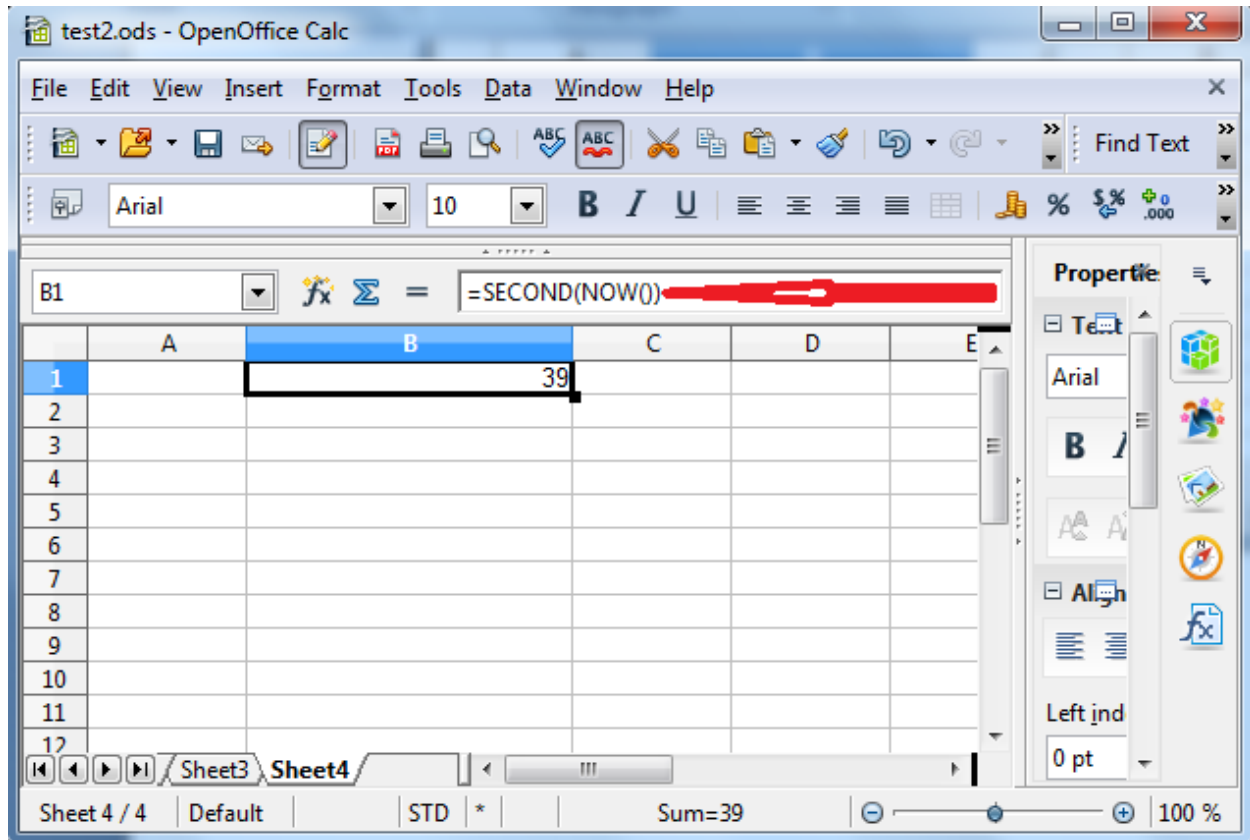
Example:

1)SECOND("2008-01-06 21:30:15")

returns 15.



2)SECOND(NOW())



8)MONTHS

- Returns the number of months between two dates.
- This function is only available if the Analysis AddIn is installed.

Syntax:

MONTHS(startdate; enddate; mode)

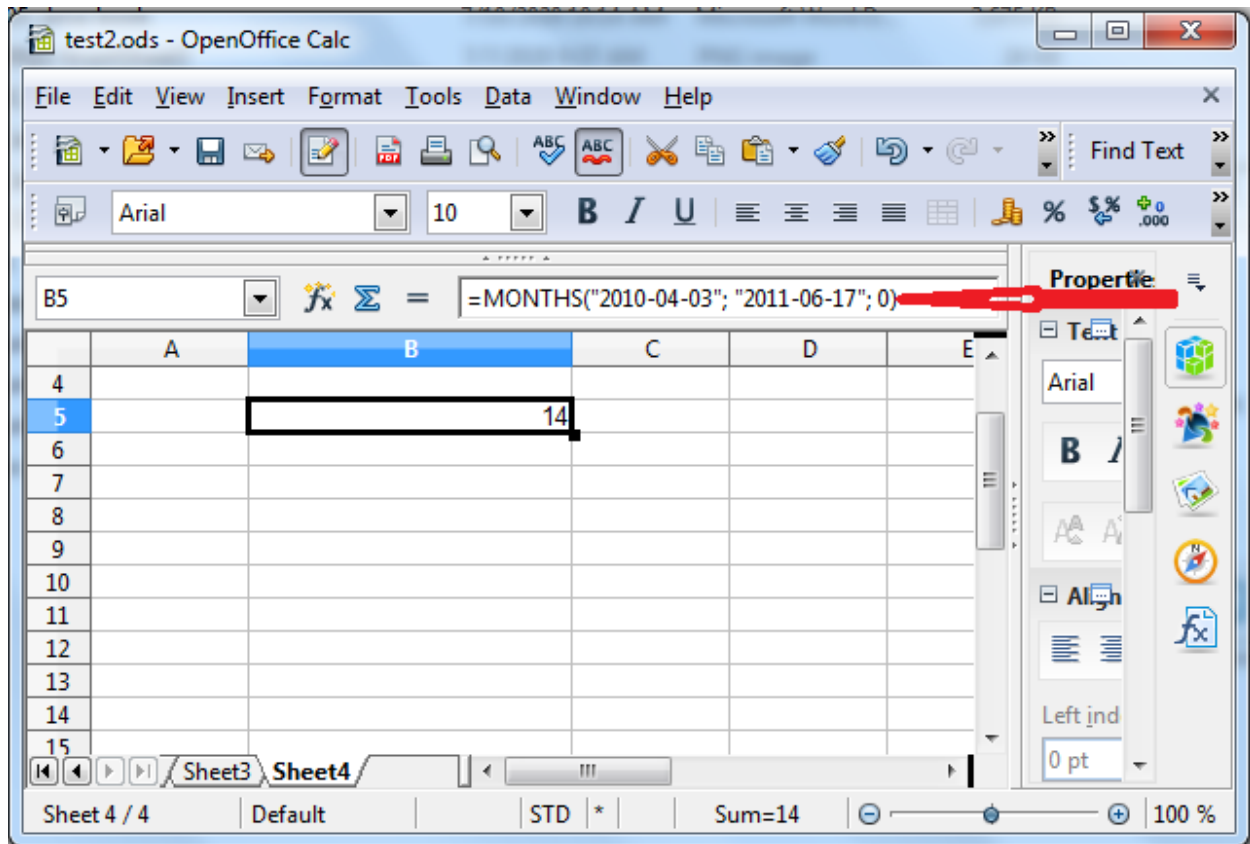
- if mode is 0, MONTHS returns the number of whole months between startdate and enddate, day of the month to day of the month (see examples).

- if mode is 1, MONTHS identifies the month that startdate and enddate each lie in, and returns the difference between those months.
- In other words it returns $\text{MONTH}(\text{enddate}) - \text{MONTH}(\text{startdate}) + 12 * (\text{YEAR}(\text{enddate}) - \text{YEAR}(\text{startdate}))$.
- If startdate is after enddate the result will be negative.

Example:

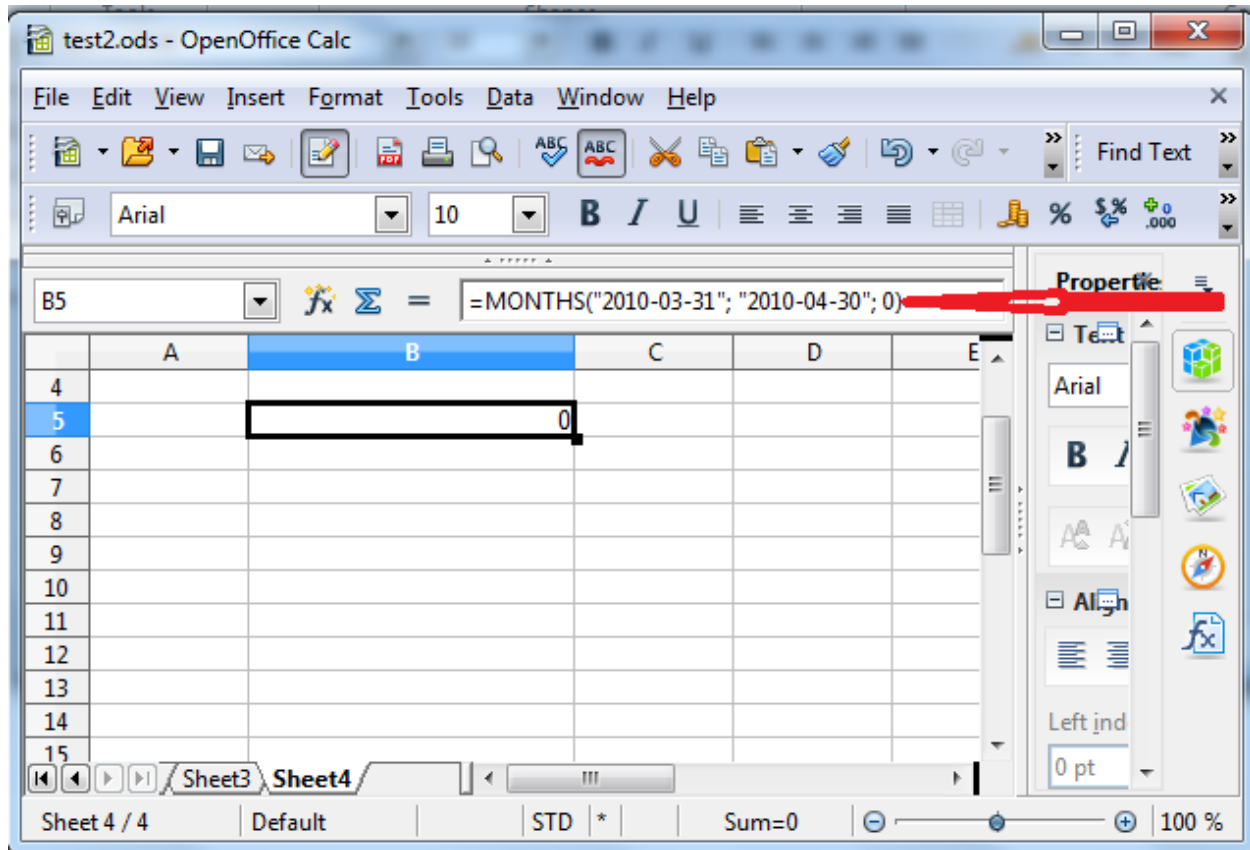
a) `MONTHS("2010-04-03"; "2011-06-17"; 0)`

returns 14, the number of months between 3 April 2010 and 17 June 2011.



b) MONTHS("2010-03-31"; "2010-04-30"; 0)

returns 0. 31 March to 30 April is not considered a whole month, even though they are both the last day of their months.



c) MONTHS("2010-03-31"; "2010-06-30"; 0)

returns 2. Even though both dates are the last day of their months, the last month is not counted, because the day is less than 31.

d) MONTHS("2010-04-03"; "2011-06-17"; 1)

returns 14, the number of months between April 2010 and June 2011.

e) MONTHS("2010-03-31"; "2010-04-01"; 1)

returns 1. Even though the dates are just one day apart, they lie in different months.

9) DAYS360

- Returns the number of days between two dates, using the 360 day year.

Syntax:

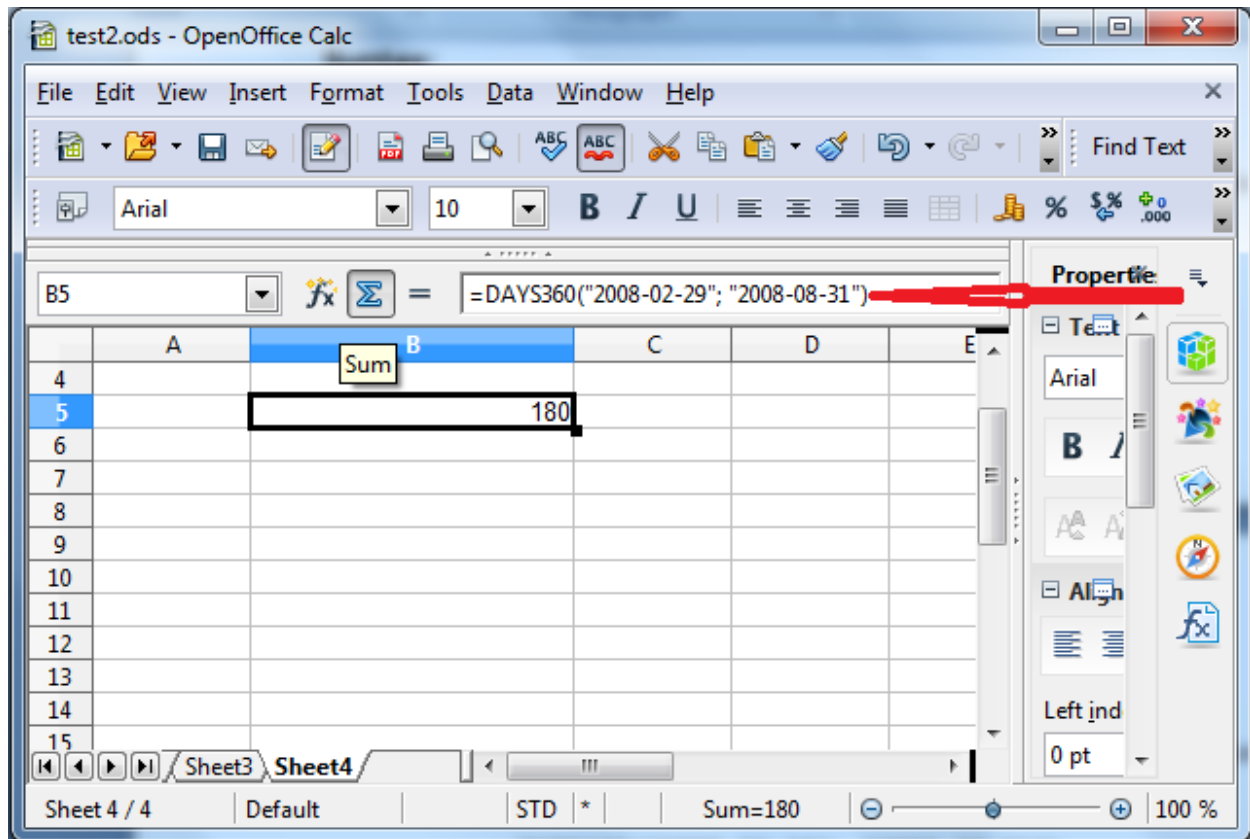
DAYS360(enddate; startdate; method)

- startdate and enddate are the starting and ending dates (text or date-time serial numbers). If startdate is earlier than enddate, the result will be negative.
- method is an optional parameter; if 0 or omitted
- The calculation assumes that all months have 30 days, so a year (12 months) has 360 days.

Example:

a) DAYS360("2008-02-29"; "2008-08-31")

returns 180, that is, 6 months of 30 days.



10)WEEKDAY

- Returns the day of the week for a given date.

Syntax:

WEEKDAY(date; type)

- returns the day of the week that date falls on, as a number.
- The number returned depends on type, as follows:

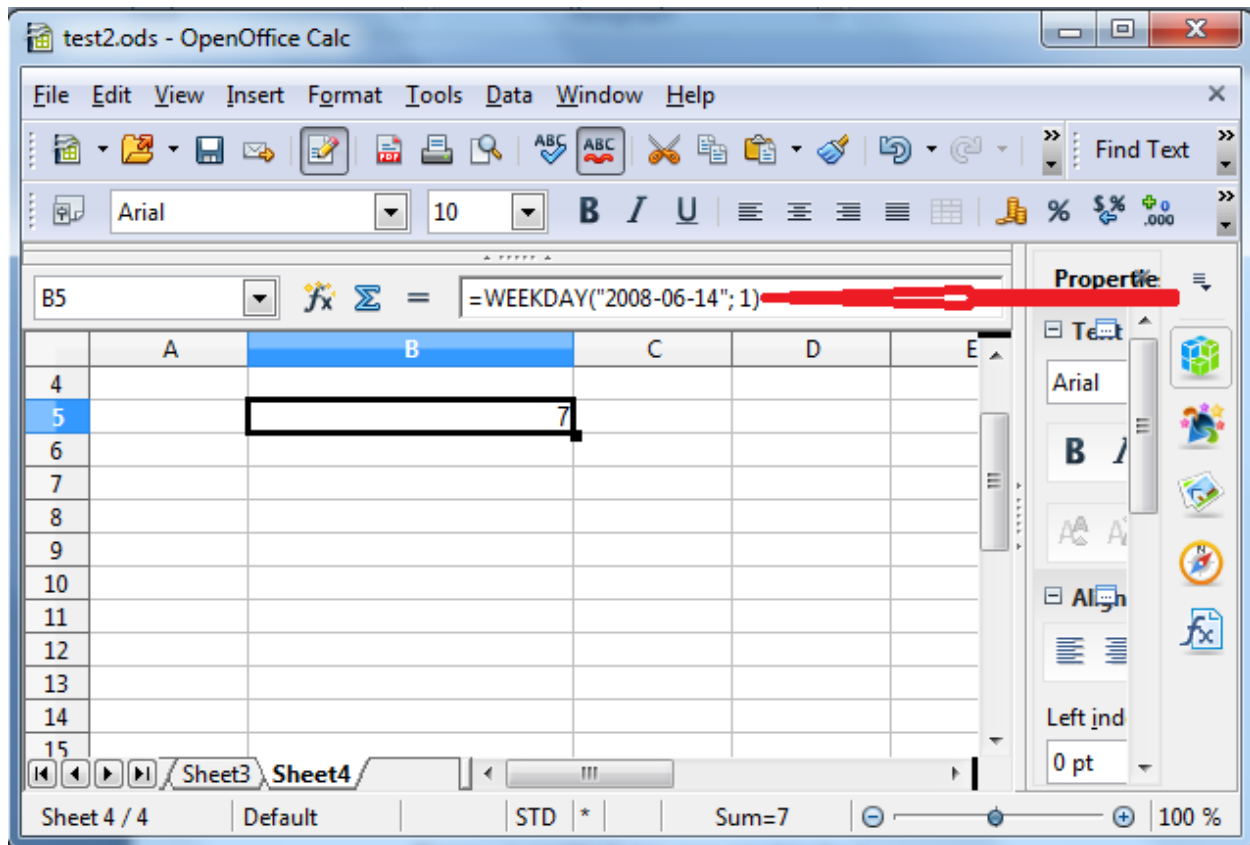
day of the week	type=1	type=2	type=3
Sunday	1	7	6
Monday	2	1	0
Tuesday	3	2	1
Wednesday	4	3	2
Thursday	5	4	3
Friday	6	5	4
Saturday	7	6	5

If type is omitted, it is assumed to be 1.

Example:

a)WEEKDAY("2008-06-14"; 1)

returns 7. 14Jun08 falls on a Saturday.



2.3 Data

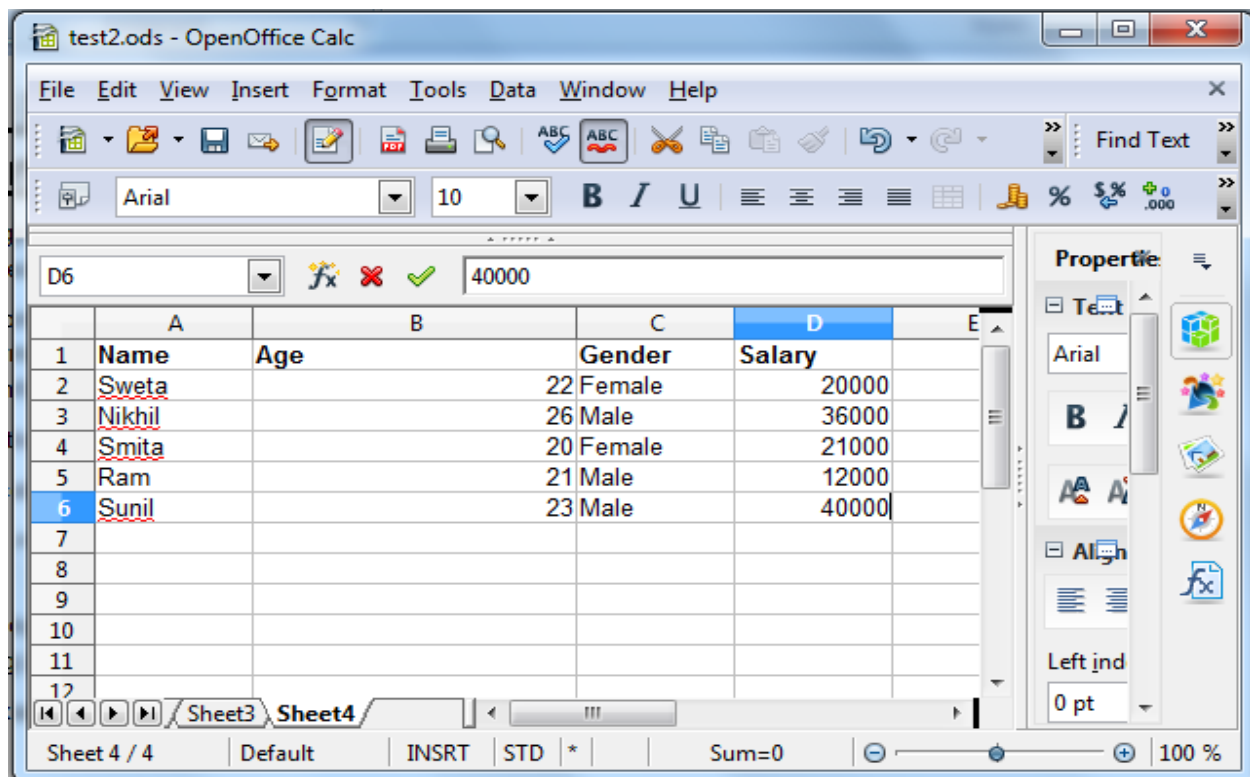
2.3.1 Sort Data

- Sorting arranges the visible cells on the sheet. In Calc, you can sort by up to three criteria, with each criterion applied one after the other
- In addition, sorting is often useful when you add new information.
- When a list is long, it is usually easier to add new information at the bottom of the sheet, rather than adding rows in the proper places.
- After you have added information, you can then sort it to update the sheet.

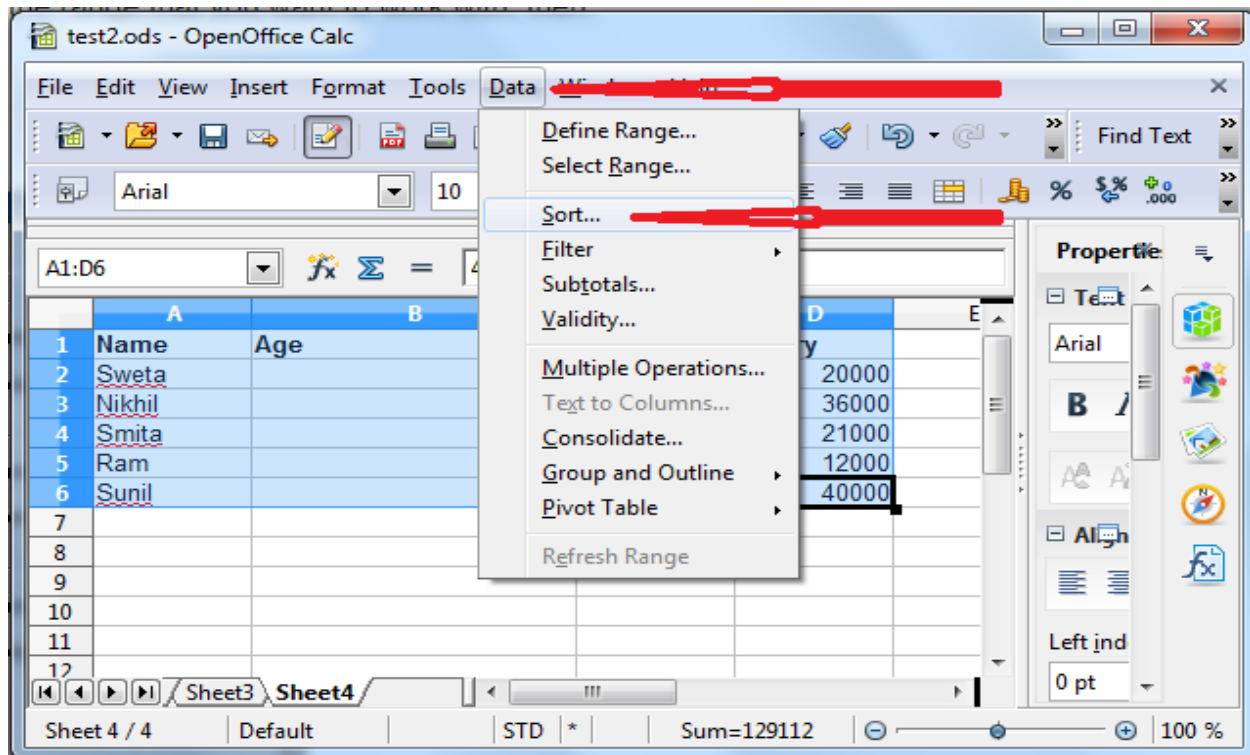
Steps for Sorting Data

- Select the cells to be sorted.
- Select Data > Sort to open the Sort dialog, or click the Sort Ascending or Sort Descending toolbar buttons.
- Using the dialog, you can sort the selected cells using up to three columns, in either ascending (A-Z, 1-9) or descending (Z-A, 9-1) order.
- Lets take a example for understanding the sorting.

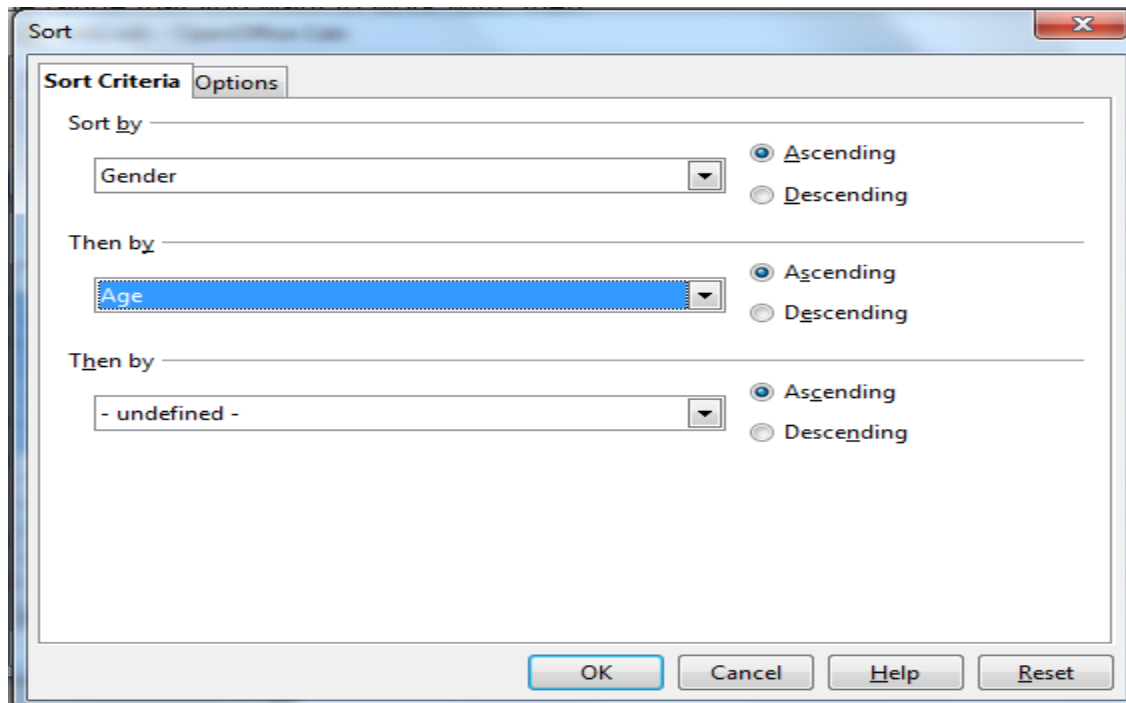
Example



- select the range that you want to work with, then: in the menu Data – Sort

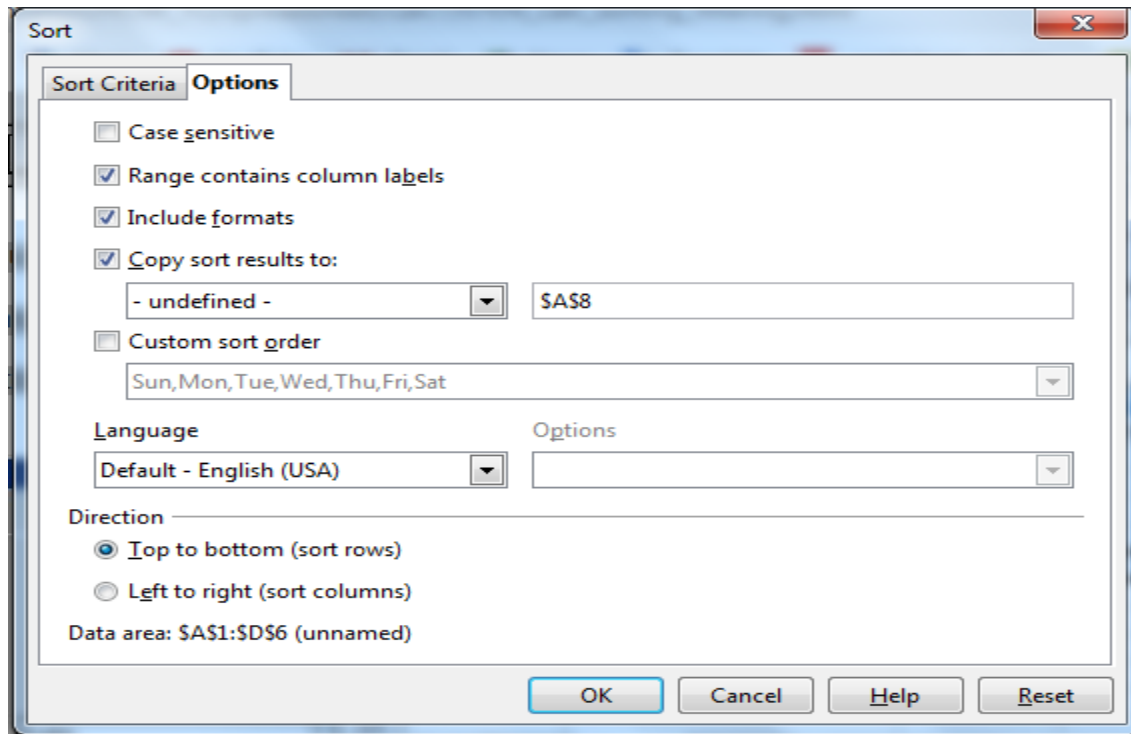


The following window should appear :

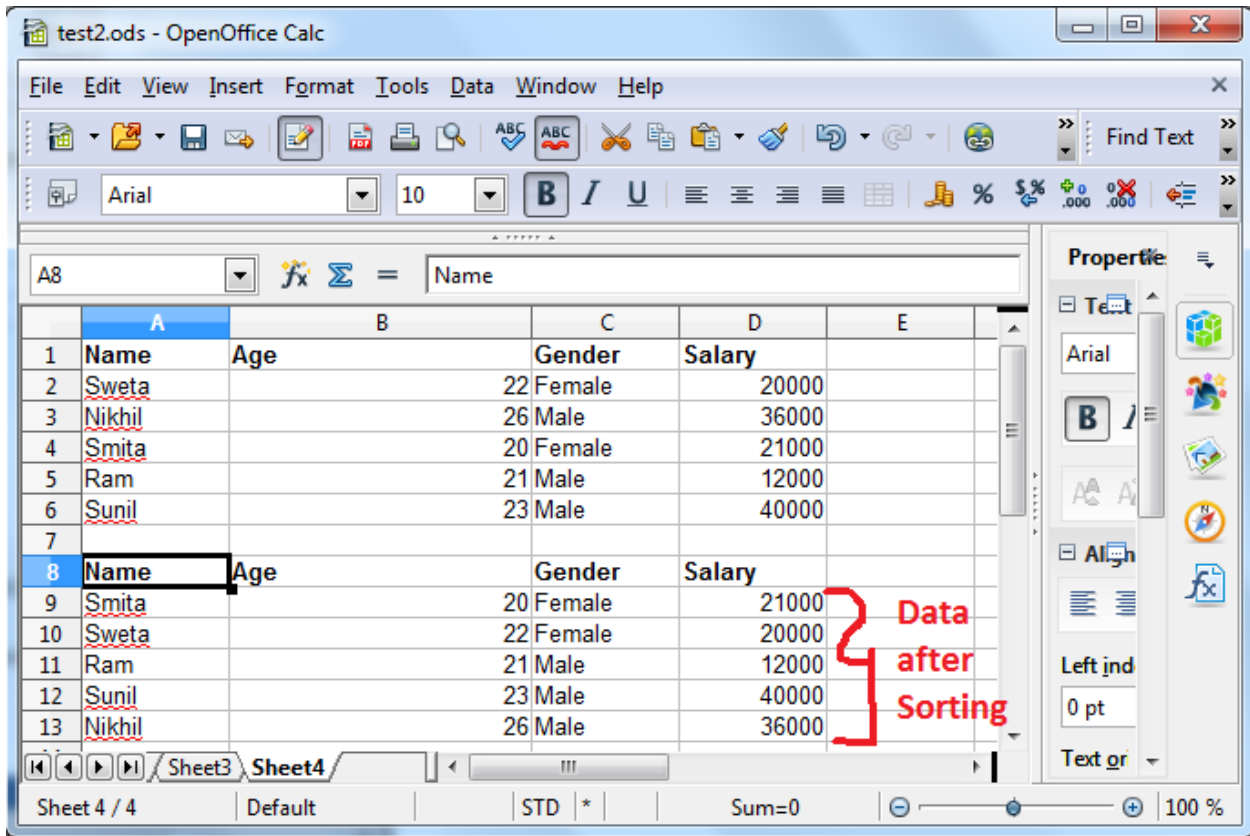


- Under the tab Sort Criteria, you can define up to 3 criteria. We've decided to do an ascending sort, first by Gender, then by Age.

- All of these options will enable you to edit your sort operation in the same table or a similar table at the area you have specified previously (in our example, we chose to copy the result just below the first table).



Here is the result



The screenshot shows the OpenOffice Calc interface with a spreadsheet titled 'test2.ods'. The spreadsheet has columns A (Name), B (Age), C (Gender), and D (Salary). The data is sorted alphabetically by Name. A red bracket on the right side of the data rows (rows 9-13) is labeled 'Data after Sorting'.

	A	B	C	D	E
1	Name	Age	Gender	Salary	
2	Sweta	22	Female	20000	
3	Nikhil	26	Male	36000	
4	Smita	20	Female	21000	
5	Ram	21	Male	12000	
6	Sunil	23	Male	40000	
7					
8	Name	Age	Gender	Salary	
9	Smita	20	Female	21000	
10	Sweta	22	Female	20000	
11	Ram	21	Male	12000	
12	Sunil	23	Male	40000	
13	Nikhil	26	Male	36000	

2.3.2 Filtering Data

There are a couple ways to filter out data so that you see only what you want.

1) Standard Filter

- The use of filters is as simple as sorting. After having selected your range
- go to the menu Data – Filter – Standard Filter...
- The following window should appear

Standard Filter

Filter criteria

Operator	Field name	Condition	Value
	Gender	=	Female
AND	Age	=	22
	- none -	=	
	- none -	=	

☐ Case sensitive
 ☐ Regular expression

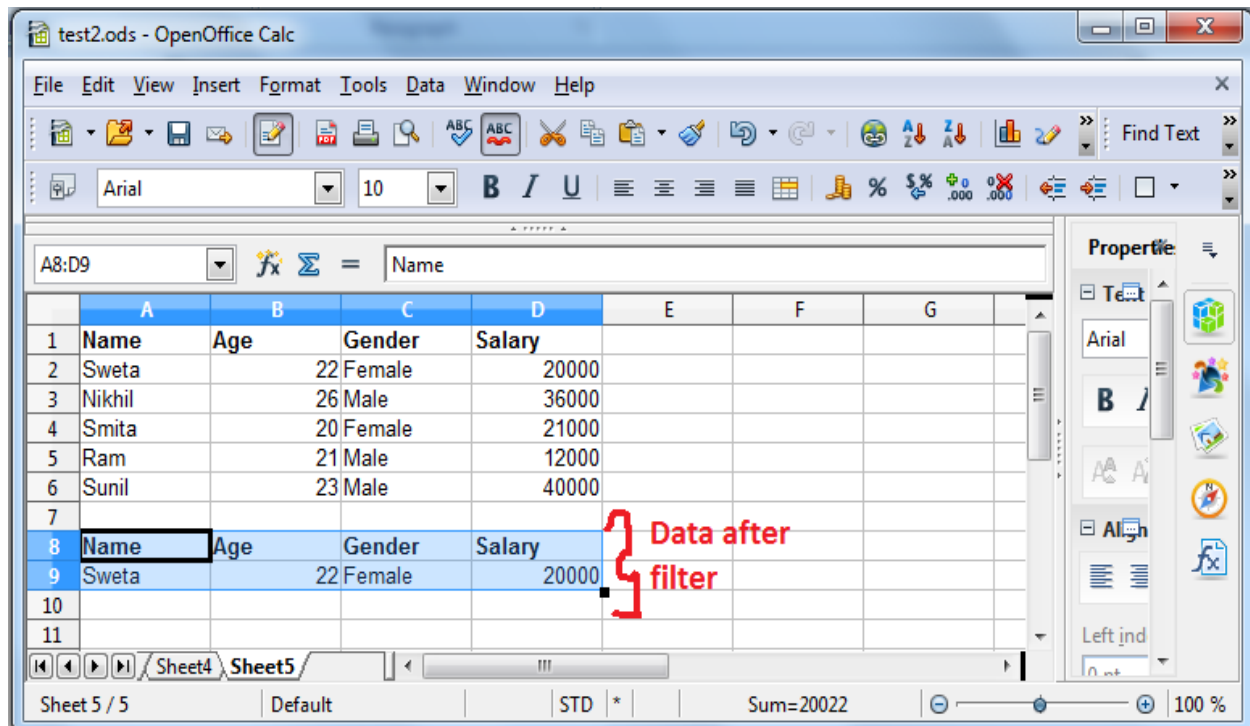
☒ Range contains column labels
 ☐ No duplication

☒ Copy results to...
 ☒ Keep filter criteria

- undefined -

Data range: \$Sheet5.\$A\$1:\$D\$6 (unnamed)

- Fill in the data field names on which you want to base your filter by selecting them in the drop-down menu,
- Here again, you can use up to 3 criteria with Boolean operators (and, or) and other conditions such as equals, greater than, less than, less than or equal to....
- The value is represented by the data on which the filter is to be carried out in relation to the field name chosen,
- The More button, enables you to edit a table, taking into account regular expressions, case sensitivity or duplicates, in our example, we chose to copy the result onto the same sheet, a bit lower down
- Here's the result



Autofilter

- The Autofilter is slightly different from the standard filter. In order to understand what it does, let's use it and see what we get. Select the range of data, including column names.
- Under Data, select Filter – Autofilter, and see what appears on the screen :
- Next to each field name, a small button with an arrow has appeared. Click on the one next to the field 'Name' to see what it does.

test2.ods - OpenOffice Calc

File Edit View Insert Format Tools Data Window Help

Find Text

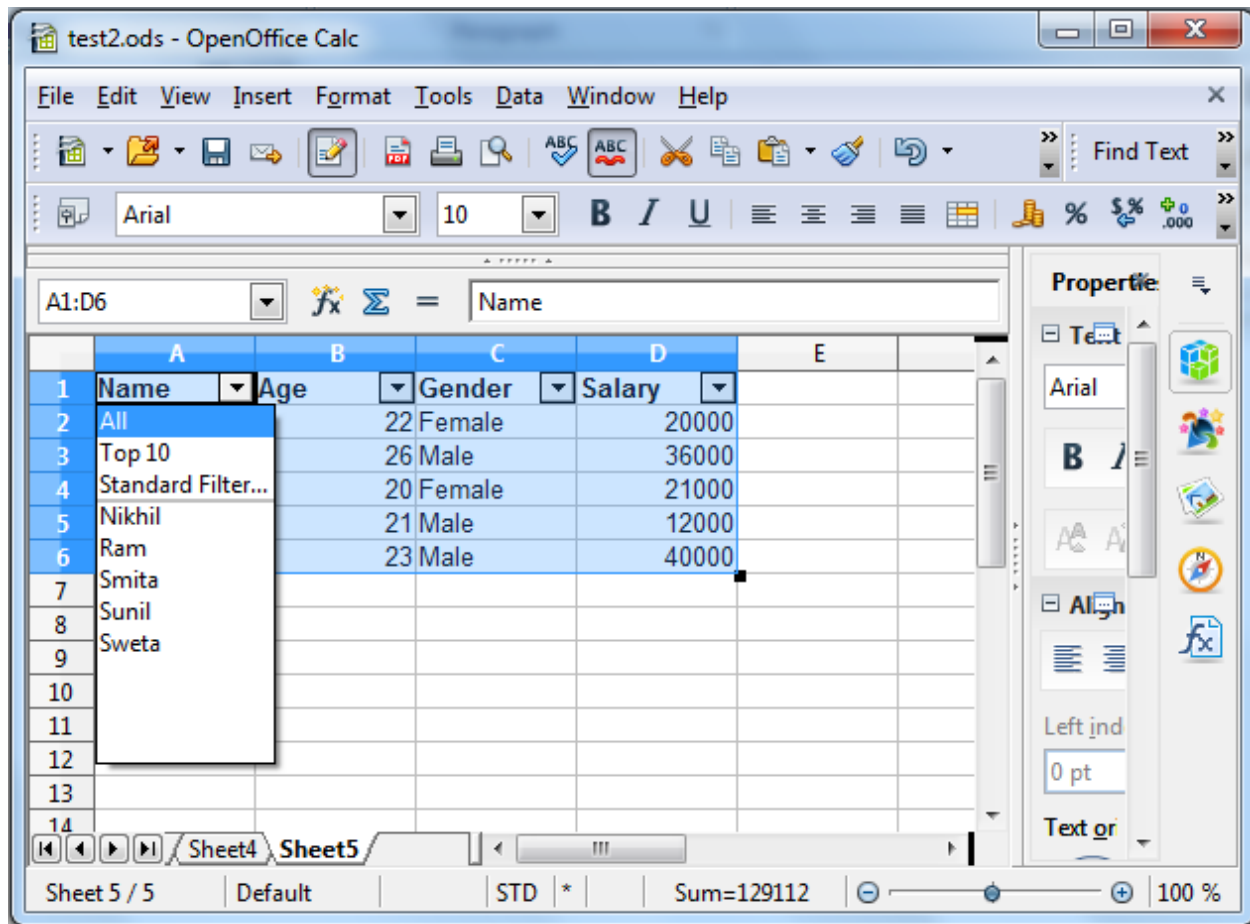
Arial 10 B I U

A1:D6 = 40000

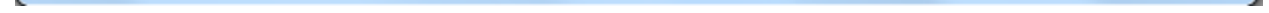
	A	B	C	D	E
1	Name	Age	Gender	Salary	
2	Sweta	22	Female	20000	
3	Nikhil	26	Male	36000	
4	Smita	20	Female	21000	
5	Ram	21	Male	12000	
6	Sunil	23	Male	40000	
7					
8					
9					
10					
11					
12					
13					
14					

Sheet4 Sheet5

Sheet 5 / 5 Default STD * Sum=129112 100 %

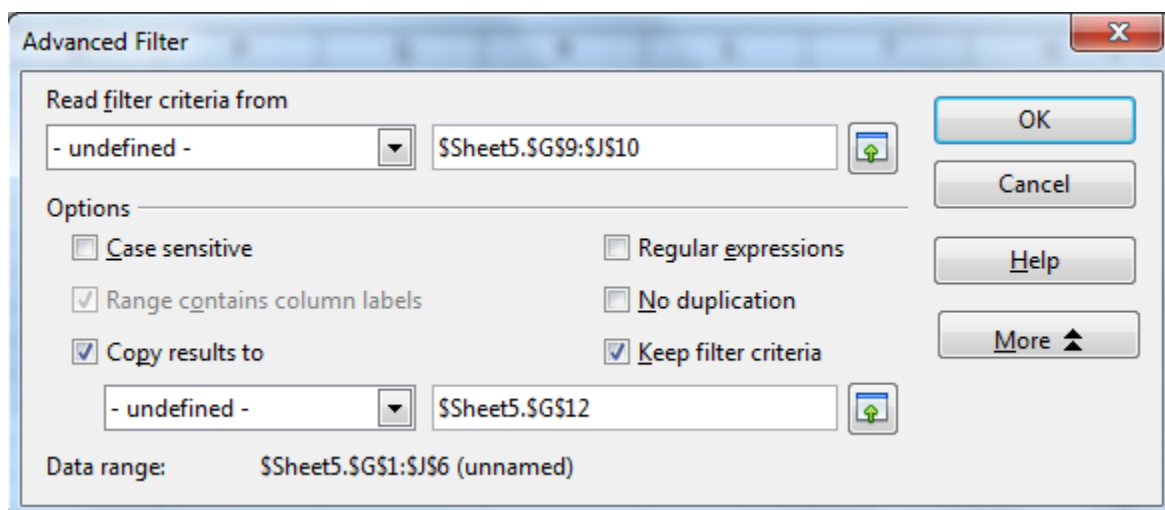
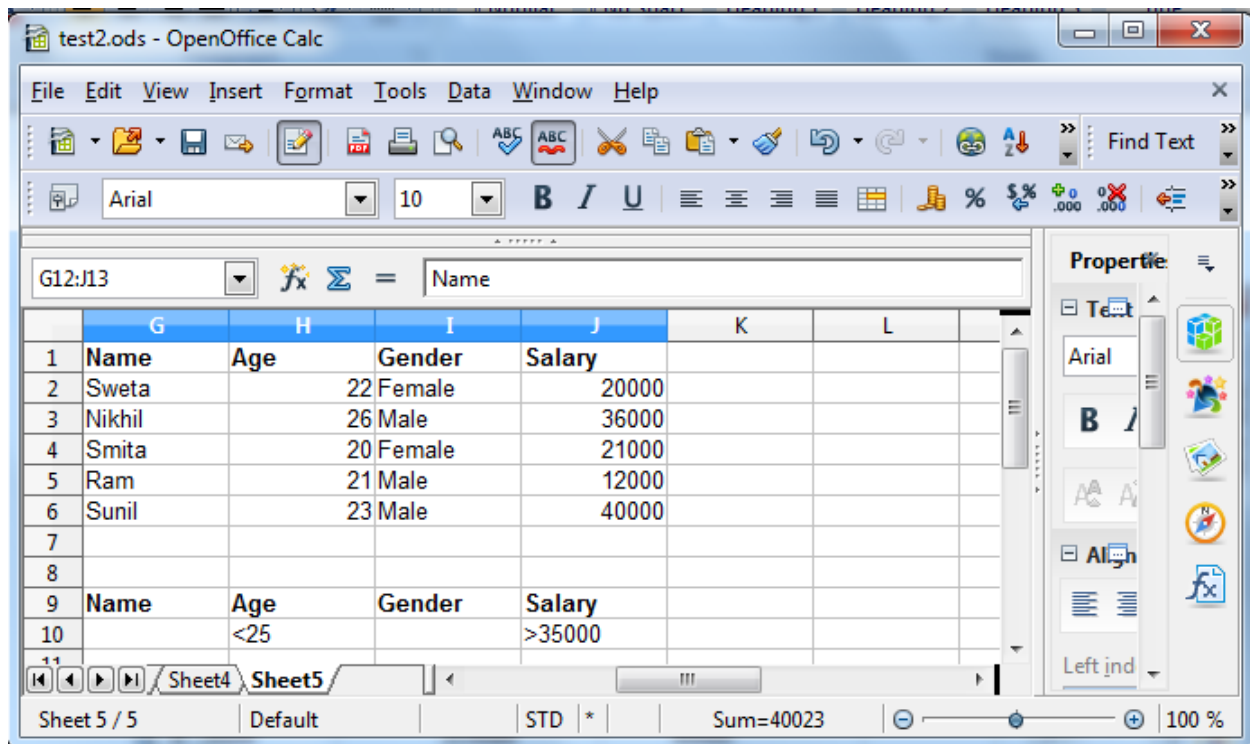


- As you will have noticed, the list of names represents the filter criteria and you can apply them differently to each column.
- If you click on Standard, Standard filter dialogbox is open.
- Let's click on Sunil and observe the result obtained.



- Table 1**

- now enter your sort criteria, under each column, bearing in mind that criteria on a same horizontal row are attached to the logical value by an 'OR', whereas vertically they are attached as 'AND'.
- In order to enter names with the equals sign, don't forget to put in quotation marks (' ').
- In our example lets filter the data whose age is less than 25 AND salary is grater than 35000.



Here's the result

test2.ods - OpenOffice Calc

File Edit View Insert Format Tools Data Window Help

Find Text

Can't Restore

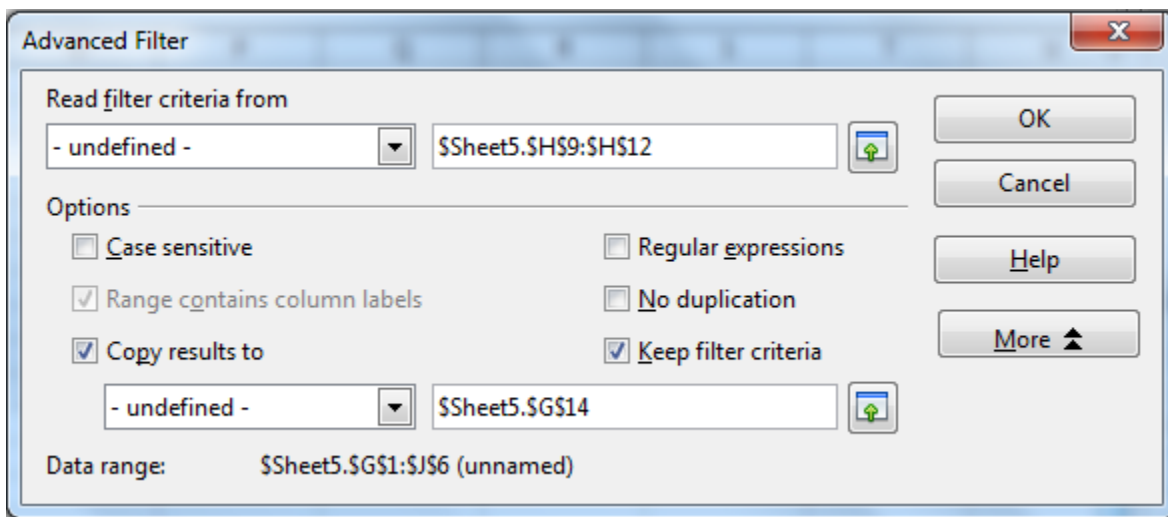
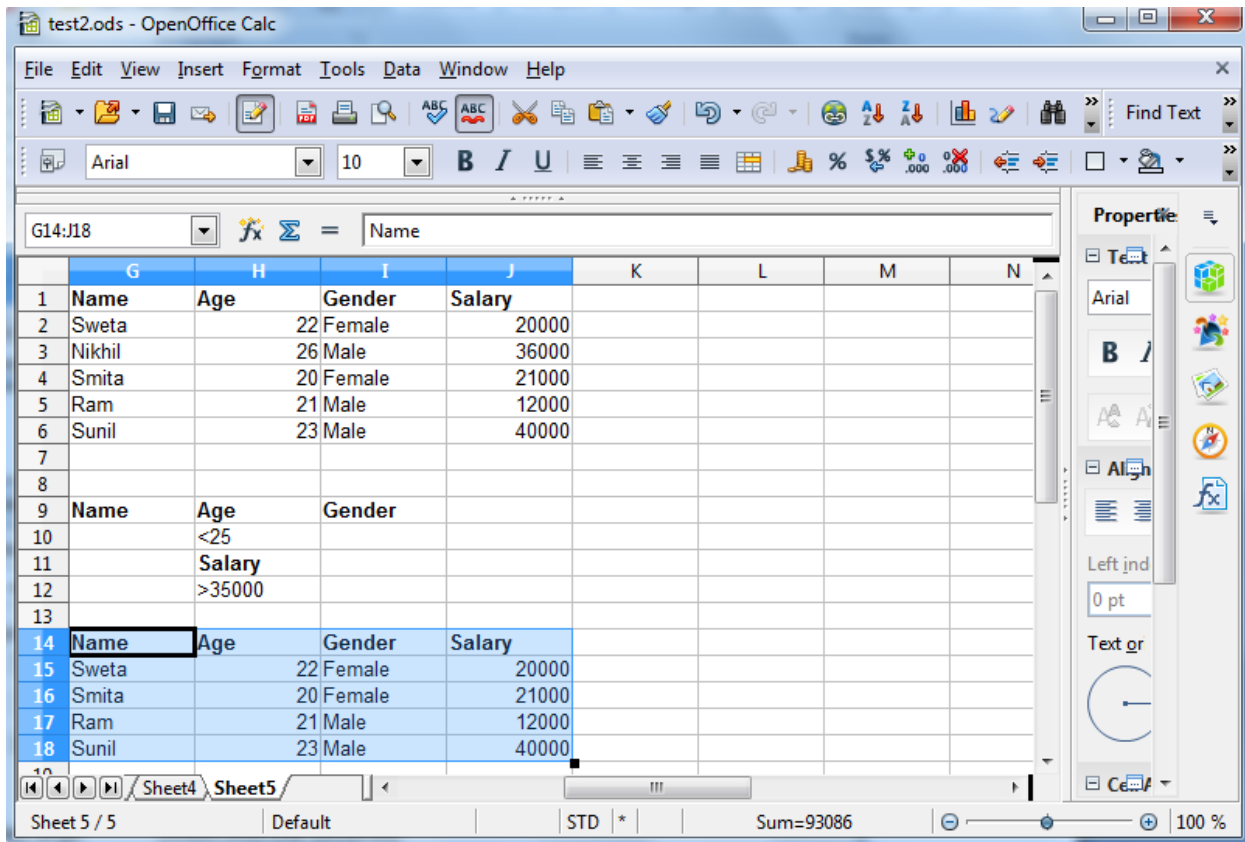
G12:J13

	G	H	I	J	K	L
1	Name	Age	Gender	Salary		
2	Sweta	22	Female	20000		
3	Nikhil	26	Male	36000		
4	Smita	20	Female	21000		
5	Ram	21	Male	12000		
6	Sunil	23	Male	40000		
7						
8						
9	Name	Age	Gender	Salary		
10		<25		>35000		
11						
12	Name	Age	Gender	Salary		
13	Sunil	23	Male	40000		
14						

Sheet5

Sheet 5 / 5 Default STD * Sum=40023 100 %

Lets filter the data whose age is less than 25 OR salary is grater than 35000.

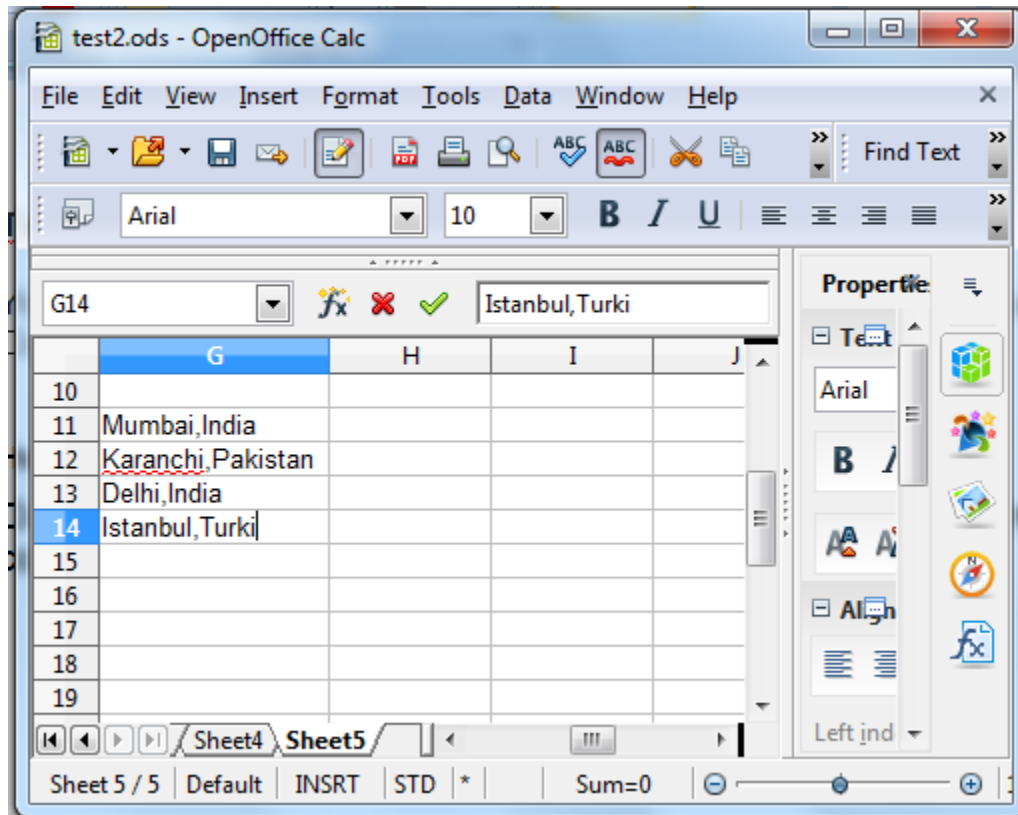


2.3.3 Text to Columns

- You can take the text in one or more cells, and split it into multiple cells using the Convert Text to Columns Wizard.

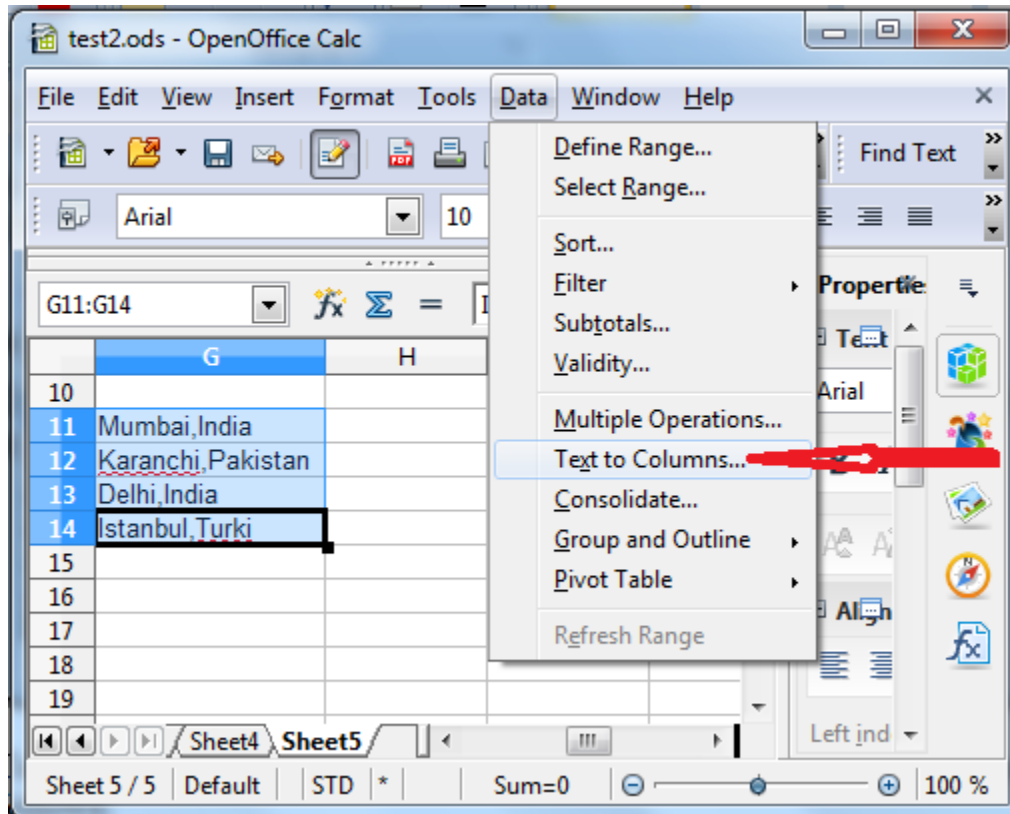
How to use

- Our example spreadsheet contains city and country names delimited by a comma:



- To remove the comma and put the country names into column B, we proceed as follows:
- Make sure there are enough clear cells to accept the new values. Otherwise, the cells will be overwritten. In this case, column B must be empty because the data will grow one column to the right.
- Highlight the full range of cells (in this case, G11 through G14).

- Click Data > Text to Columns.



- Uncheck the box Tab.
- Check the box Comma.

Text to Columns

Import

Character set: Unicode

Language: Default - English (USA)

From row: 1

Separator options

☐ Fixed width

☒ Separated by

☐ Tab ☒ Comma ☐ Other ☐ Semicolon ☐ Space

☐ Merge delimiters

Text delimiter: "

Other options

☐ Quoted field as text

☒ Detect special numbers

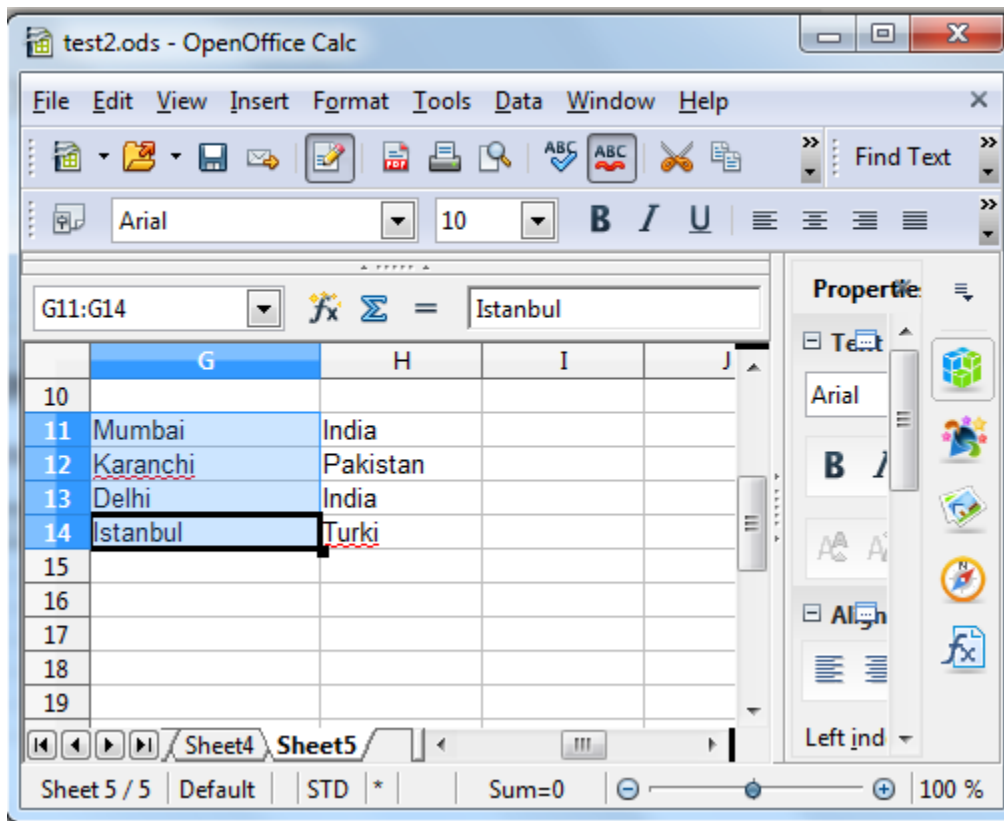
Fields

Column type:

	Standard	Standard
1	Mumbai	India
2	Karanchi	Pakistan
3	Delhi	India
4	Istanbul	Turki

- Click the box OK.

- Here are the results



Applications of Text to Columns

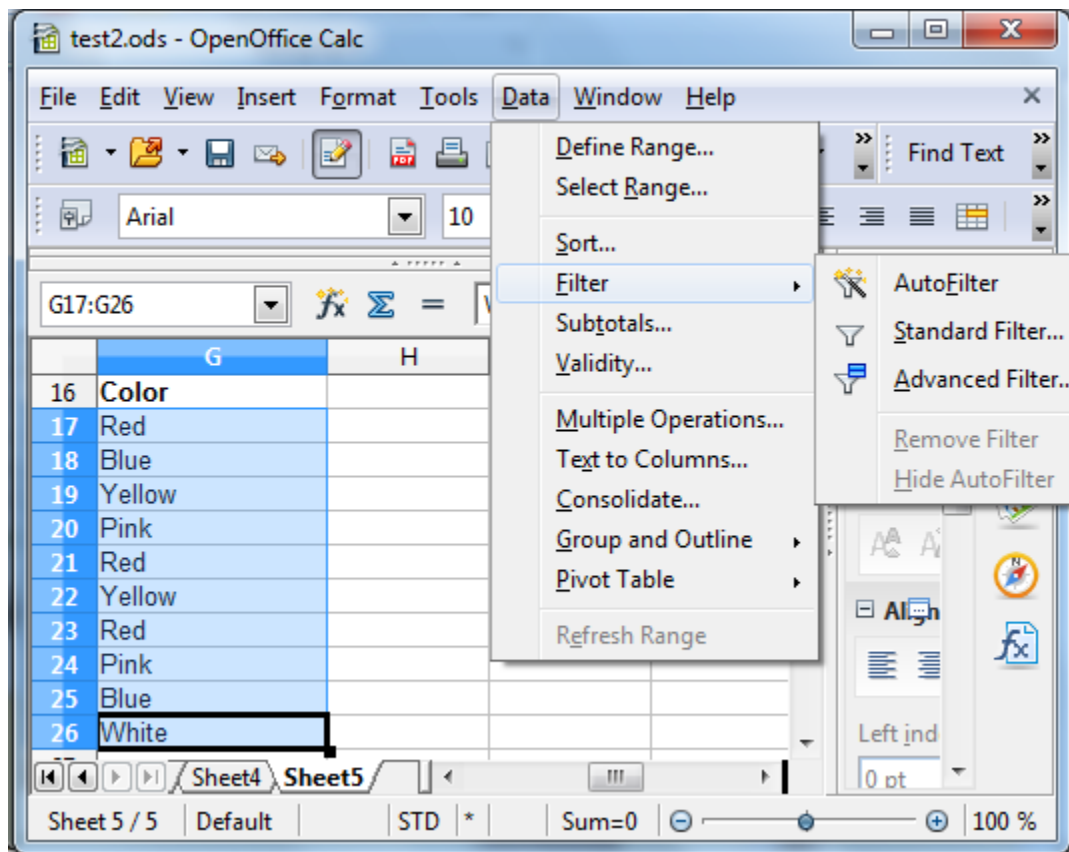
- You can use this feature for a variety of use cases including:
- Splitting city and states such as Los Angeles, California
- Splitting last and first names such as Smith, John (using a comma).
- Splitting full names such as Mr. John A. Smith (using a space).
- Splitting fixed-width (non-delimited) data such as 20080126 (in one cell) to 2008 01 26 (across three cells).
- Cleaning up .csv or .tsv files embedded in a spreadsheet.
- Copying certain tables from a PDF (which may be space delimited).

2.3.4 Remove Duplication

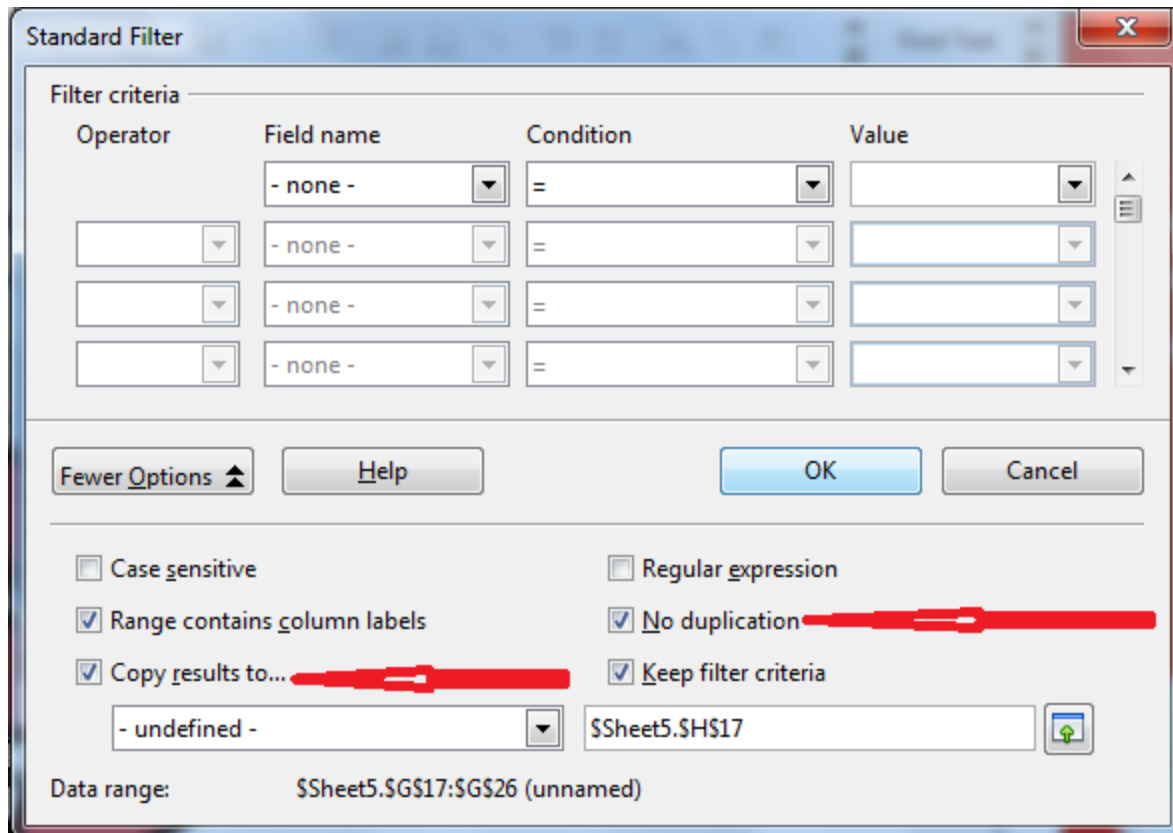
- When you are using OpenOffice Calc for its ability to create orderly lists, you might want to be able to get rid of duplicates.

Steps

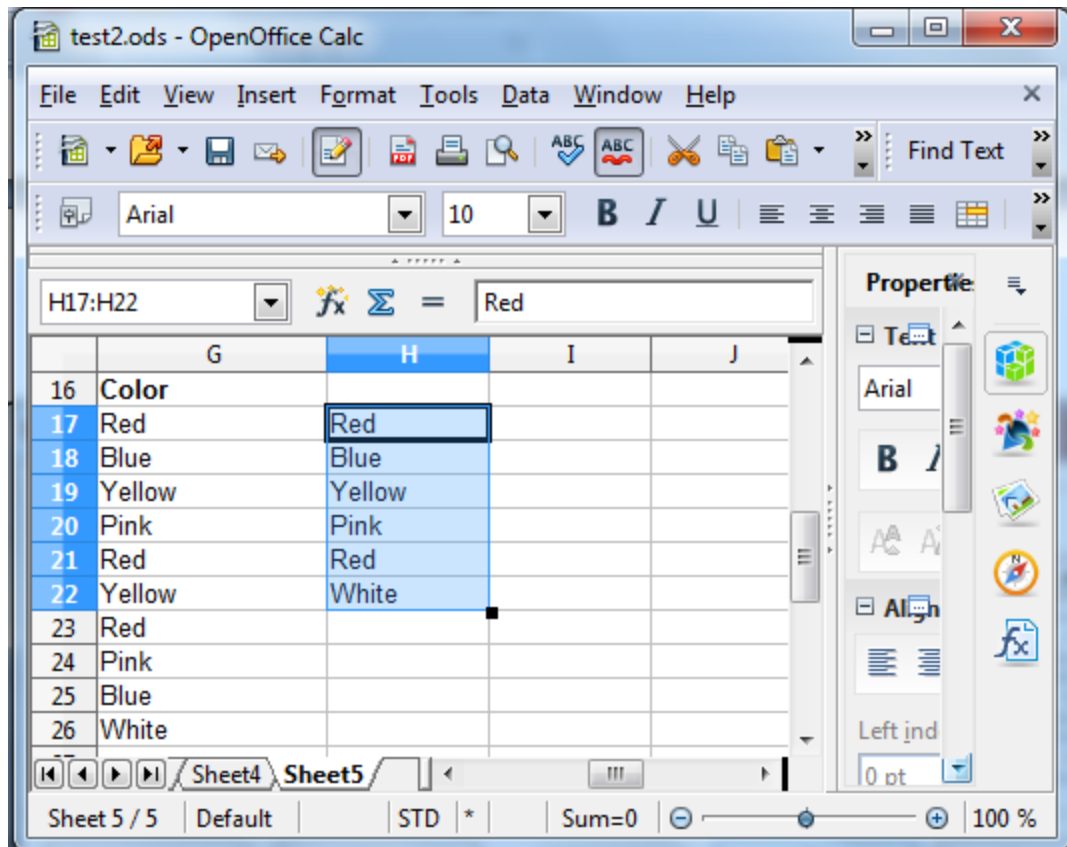
- Paste the list that you will want to filter into OOo Calc.
- Select the data that you want to filter.
- After that Go to Data >> Filter >> Standard Filter.



- Click on More Options. This will take you to more advanced options.
- Click on No Duplicates. Change Field Name to 'none'. If you want to create a separate list, click on Copy To... and select a cell address; such as H17.



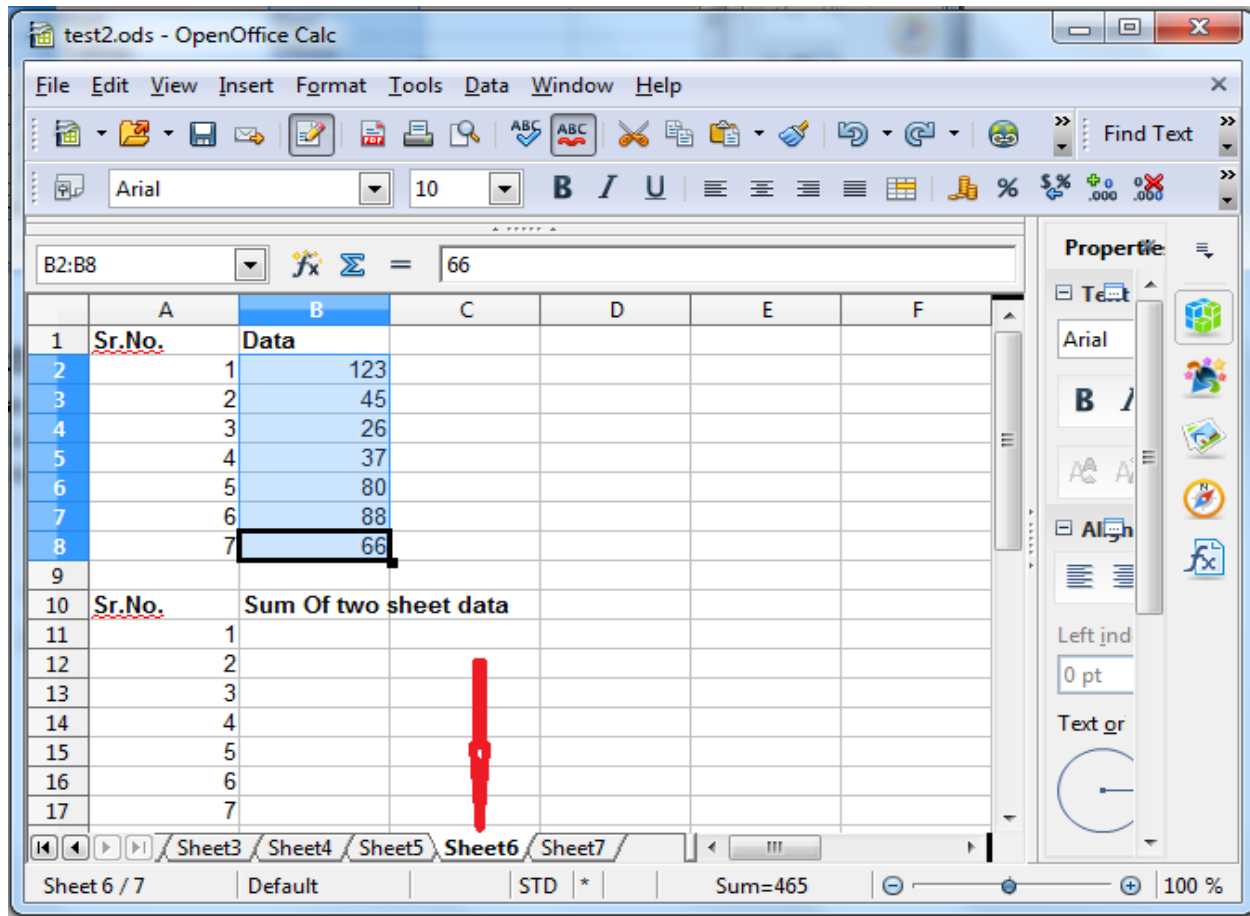
- Select Ok. All duplicates removed.
- Here is the result.

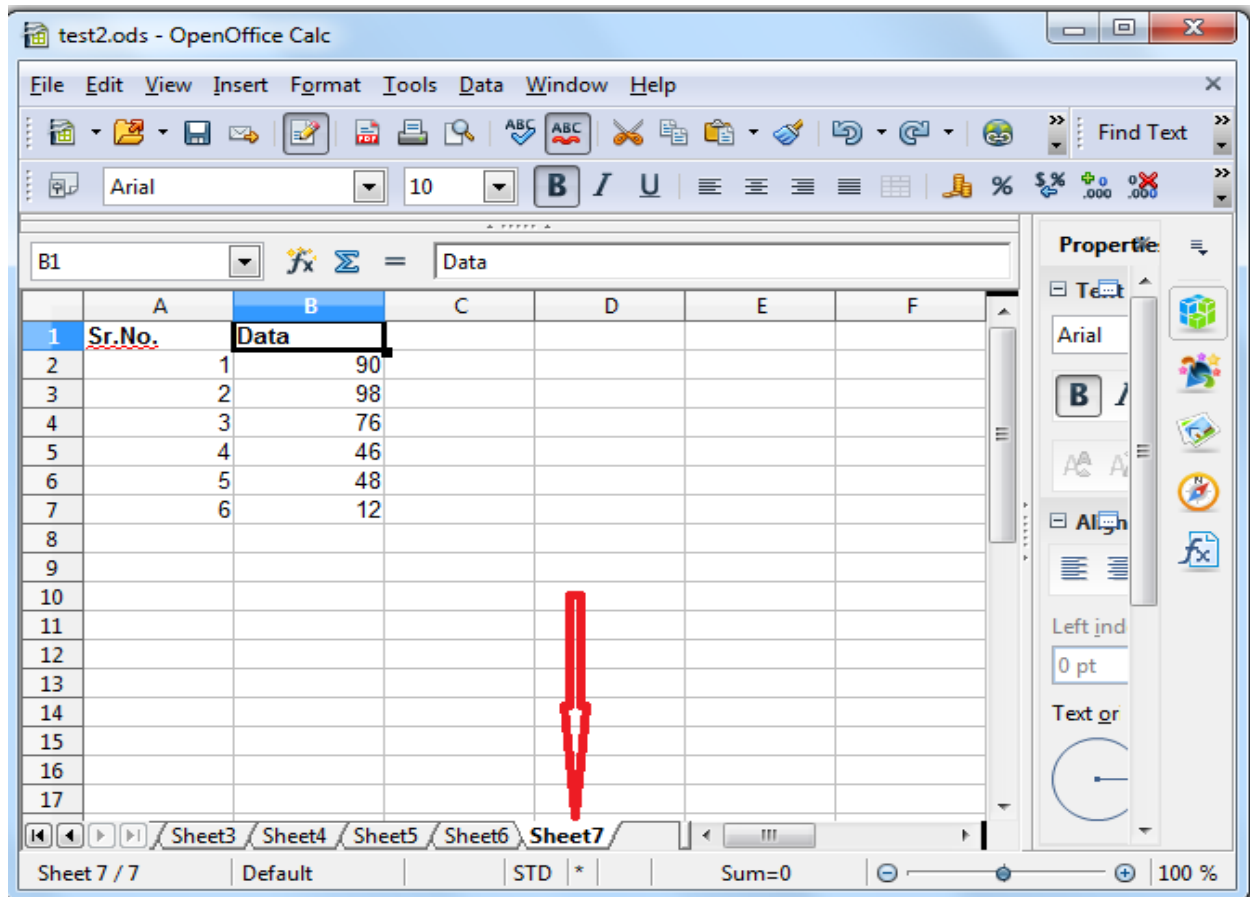


2.3.5 Consolidated Data

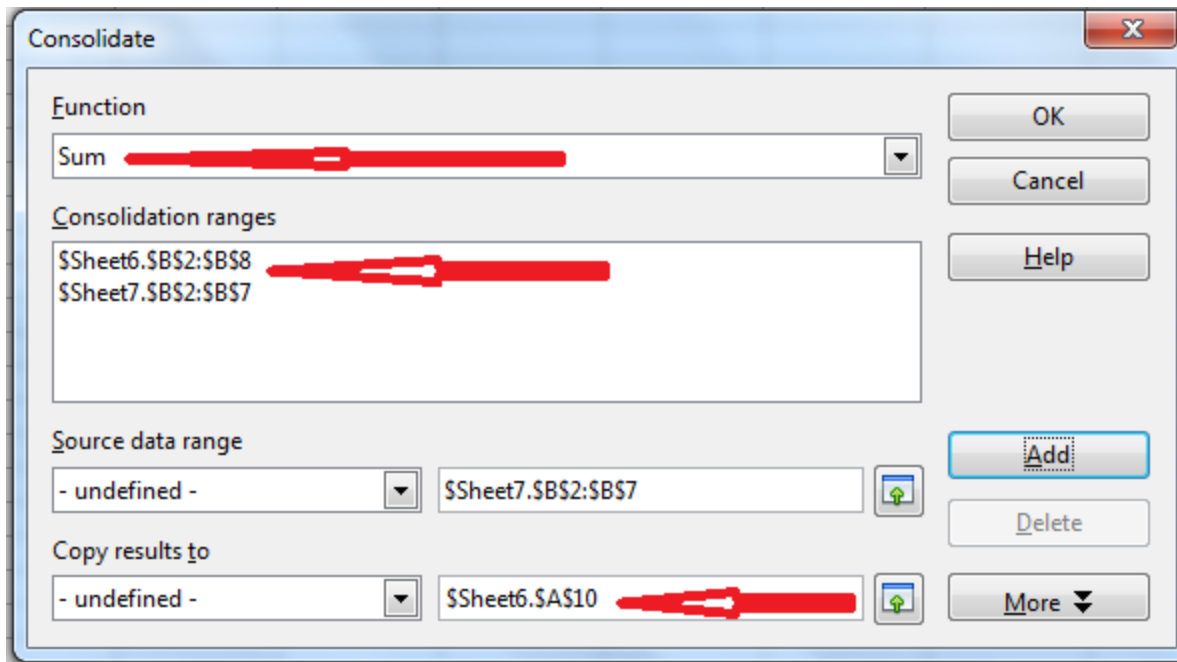
- Data > Consolidate provides a way to combine data from two or more ranges of cells into a new range while running one of several functions (such as Sum or Average) on the data.
- During consolidation, the contents of cells from several sheets can be combined in one place.

Lets take the example.





- In this example we sum the data of sheet 6 and sheet7.follow the following steps.
- Open the document that contains the cell ranges to be consolidated.
- Choose Data > Consolidate to open the Consolidate dialog. The figure shows this dialog after making the changes described below.



- The Source data range list contains any existing named ranges (created using Data > Define Range), so you can quickly select one to consolidate with other areas.
- If the source range is not named, click in the field to the right of the drop-down list and either type a reference for the first source data range or use the mouse to select the range on the sheet. (You may need to move the Consolidate dialog or click on the Shrink icon to reach the required cells.)
- Click Add. The selected range is added to the Consolidation ranges list.
- Select additional ranges and click Add after each selection.
- Specify where you want to display the result by selecting a target range from the Copy results to drop-down list.
- If the target range is not named, click in the field next to Copy results to and enter the reference of the target range or select the range using the mouse or position the cursor in the top left cell of the target range. Copy results to takes only the first cell of the

target range instead of the entire range as is the case for Source data range.

- Select a function from the Function list. This specifies how the values of the consolidation ranges will be calculated. The default setting is Sum, which adds the corresponding cell values of the Source data range and gives the result in the target range.
- Most of the available functions are statistical (such as Average, Min, Max, Count, Stdevt), and the tool is most useful when you are working with the same data over and over.
- Click OK to consolidate the ranges.
- If you are continually working with the same range, then you probably want to use Data > Create Range to give it a name.
- The consolidation ranges and target range are saved as part of the document. If you later open a document in which consolidation has been defined, this data is still available.
- In our example after consolidate data result is describe below.

test2.ods - OpenOffice Calc

File Edit View Insert Format Tools Data Window Help

Find Text

Arial 10 B I U

B17 = 66

	A	B	C	D	E	F
1	<u>Sr.No.</u>	<u>Data</u>				
2		1	123			
3		2	45			
4		3	26			
5		4	37			
6		5	80			
7		6	88			
8		7	66			
9						
10	<u>Sr.No.</u>	<u>Sum Of two sheet data</u>				
11		1	213			
12		2	143			
13		3	102			
14		4	83			
15		5	128			
16		6	100			
17		7	66			

Sheet3 Sheet4 Sheet5 Sheet6 Sheet7

Sheet 6 / 7 Default STD * Sum=66 100 %

Property

Text

Arial

B I U

Align

Left ind

0 pt

Text or