**<http://chandoo.org/wp/2010/06/17/compare-2-lists-in-excel/> (updated for 2019)**

**Become a Comparison Ninja – Compare 2 Lists in Excel and Highlight Matches**

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**Comparison of lists of data is something that we do all the time.** Today, lets learn a few tricks that you can apply immediately to compare 2 lists using Excel.

***We will learn how to compare 2 lists of data in 3 + 1 different ways.*** (click on links to jump to that section of post)

1. [Highlight items that are only in first list](http://chandoo.org/wp/2010/06/17/compare-2-lists-in-excel/#first-list-only)
2. [Highlight items that are only in second list](http://chandoo.org/wp/2010/06/17/compare-2-lists-in-excel/#second-list-only)
3. [Highlight items that are in both lists](http://chandoo.org/wp/2010/06/17/compare-2-lists-in-excel/#both-lists)
4. [Search and highlight matches in both lists](http://chandoo.org/wp/2010/06/17/compare-2-lists-in-excel/#search-items) ***- Home Work***

**Understanding the Comparison Logic:**

Whenever you compare 2 sets of values, there are 3 possibilities, as shown in the illustration below:



Apart from looking like [imperfect circles that Mike Alexander would draw](http://datapigtechnologies.com/blog/index.php/draw-a-perfect-circle-in-excel/), these circles show important concepts of set theory in simplest form.

[there is a fourth possibility of a value not being in either lists, we omit that for now]

**What you need to compare 2 lists?**1. Of course, you need 2 lists of data. But, just to make formulas simpler and easier to read, lets name the 2 lists as lst1 and lst2.

Let’s assume your data looks like this:



2. Also, you should know [how to use COUNTIF Excel Formula](http://chandoo.org/wp/2008/11/12/using-countif-sumif-excel-help/), it is so awesome, I wonder why MS hasnt called it MAGIC() ?

***So in order to find-out if a value is in list 1 only,*** we use a formula like =COUNTIF(lst2,value)=0.
This checks whether “value” occurs anywhere in lst2 and returns false if that is the case.  (it assumes that value is already in lst1).

**Highlighting Items that are in First List Only**



1. Select values in first list (assuming the values are in B21:B29)
2. Go to conditional formatting > add rule (related: [conditional formatting basics](http://chandoo.org/wp/2009/03/13/excel-conditional-formatting-basics/))
3. Select the rule type as “formula”
4. Write a rule like this: =COUNTIF(lst2, B21)=0
5. Double check the reference and make sure it is relative (and not like $B$21). Select the reference and press F4 repeatedly to change it to relative reference
6. Set the formatting you want.
7. Click ok.
8. All done. You should see values ***only*** in first list highlighted.

**Highlighting Items that are in Second List Only**



1. Select values in second list (assuming the values are in C21:C28)
2. Go to conditional formatting > add rule (related: conditional formatting basics)
3. Select the rule type as “formula”
4. Write a rule like this: =COUNTIF(lst1, C21)=0
5. Repeat steps 5-8 as above.

**Highlighting Values in Both Lists:**



Now, it gets interesting as you should apply conditional formatting individually to both lists.

1. Select values in first list (assuming the values are in B21:B29)
2. Set the conditional formatting rule as =COUNTIF(lst2,B21)>0
3. Apply formatting as you want.
4. Now select second list (assuming the values are in C21:C28)
5. Set the conditional formatting rule as =COUNTIF(lst1,C21)>0
6. Again, apply formatting as you want.
7. That is all.

**Searching for a value and Highlighting Matched Items in Both Lists – Your Homework:**

This is another common thing we do. We want to find-out a given value (say in A1) is in the both lists, first list or second list and highlight all the matches. Like this:



Of course, doing this is very straightforward in Excel once you understand the above 3 things. So I am leaving this as your home work.

Go ahead, figure this out, practice it on a workbook. When you are satisfied with your result, post the answers here. **Discuss!**

**Download Example Workbook on Comparing 2 Lists in Excel:**

[Go ahead and download the example workbook on comparing 2 lists in excel](http://img.chandoo.org/d/compare-2-lists.xls). [[download from mirror](http://cid-b663e096d6c08c74.office.live.com/view.aspx/Public/compare-2-lists.xls)]

It also contains the answer to homework above. ***Play with it and become comparison ninja***.