

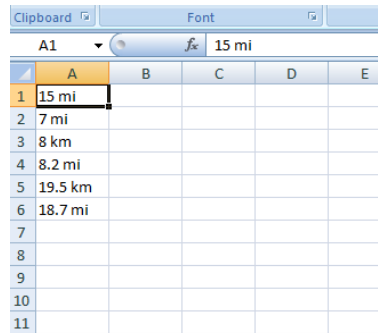
Question: I have people entering in travel distances onto a spreadsheet, but some people put in miles values and some put in kilometre values. How can I make sure that all values are in kilometres?

Answer: By using the CONVERT function

Process (Excel 2003 and 2007):

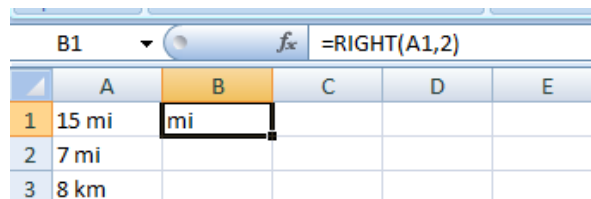
Firstly, an advisement: you will never cover every possible way that someone might enter the value “20 km”. It could be entered as “20 kilos”, “20km”, “20 km”, “20 kilometres” and every possible spelling mistake of those. The best option in this instance would be to have the number entered in one column, say, Column A, and then using a Data Validation list in Column B to select either “mi” or “km”, limiting how users enter the information and giving you something to work with (hoping they don’t type in “twenty” instead of “20”)

If you do manage to have people entering in information in a consistent was e.g. “20 mi” or “20 km”, here’s how you could do it. We’re going to use a table with six sample distances:



	A	B	C	D	E
1	15 mi				
2	7 mi				
3	8 km				
4	8.2 mi				
5	19.5 km				
6	18.7 mi				
7					
8					
9					
10					
11					

1. Select cell B1. Type in `=RIGHT(A1,2)` and press **Enter**. This will tell you if the value in cell A1 is in miles or kilometres.



	A	B	C	D	E
1	15 mi	mi			
2	7 mi				
3	8 km				

2. Select cell C1. Type in `=LEFT(A1,LEN(A1)-3)` and press **Enter**

	A	B	C	D	E
1	15 mi	mi	15		
2	7 mi				
3	8 km				

The **LEN()** function returns the length of cell A1. By subtracting 3 from this amount (i.e. the letters and the space), you are left with the total number of characters for the value. This will mean you'll capture all numbers, regardless of how big and how many decimal places there may be.

3. Select cell D1. Type in `=CONVERT(C1,"mi","km")` and press **Enter**.

	A	B	C	D	E
1	15 mi	mi	15	24.14016	
2	7 mi				
3	8 km				

The **CONVERT** function changes the value from a miles value to a kilometres value - the first option after the target cell (C1) is the value to convert from, the second is the value to convert to. There are other conversion options that include weight and mass, distances, liquid measures and temperatures. Search in Excel Help for the CONVERT function to see a full list.

4. Select cell E1. Type in `=IF(B1="mi",D1,C1)` and press **Enter**.

	A	B	C	D	E
1	15 mi	mi	15	24.14016	24.14016
2	7 mi				
3	8 km				

The formula will check to see whether this is a "mi" value and if so, return the kilometre value in D1, otherwise it will pull the original value from C1

5. Highlight cells B1:E1

	A	B	C	D	E
1	15 mi	mi	15	24.14016	24.14016
2	7 mi				
3	8 km				
4	8.2 mi				
5	19.5 km				
6	18.7 mi				

6. Use the **AutoFill Handle** and drag down to cell **E6**.

	A	B	C	D	E
1	15 mi	mi	15	24.14016	24.14016
2	7 mi				
3	8 km				
4	8.2 mi				
5	19.5 km				
6	18.7 mi				

This will fill all of the formulas down to row 6.

	A	B	C	D	E
1	15 mi	mi	15	24.14016	24.14016
2	7 mi	mi	7	11.26541	11.26541
3	8 km	km	8	12.87475	8
4	8.2 mi	mi	8.2	13.19662	13.19662
5	19.5 km	km	19.5	31.38221	19.5
6	18.7 mi	mi	18.7	30.09473	30.09473

For those who like to conserve space, the above could be accomplished in one, nested formula:

=IF(RIGHT(A1,2)="mi",CONVERT(LEFT(A1,LEN(A1)-3),"mi","km"),LEFT(A1,LEN(A1)-3))

NB: to use the CONVERT function in Excel 2003, you will need to have the Analysis ToolPak installed. This can be done by using the MS Office installation CD, customising the MS Excel installation option and ticking the box for the Analysis ToolPak. The function comes standard with Excel 2007.

If you have any suggestions for an Excel Tips & Tricks topic, or you would like help with a particular function, please email enablement@alchemex.com and yours could be the next Tip Of The Week.

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