

Question: I am recording monthly sales amounts and there seems to be a constant, upward trend, though the increase each month isn't always the same amount. Can I use Excel to tell me when I'll hit a certain sales amount?

Answer: Yes, with the FORECAST function

Process (Excel 2003, 2007 and 2010):

The FORECAST function can work whenever you have a set of data pairs: an *x-value* range (say, date) and a *y-value* range (say, value of sales for that date). The function uses a trend line on the *y-value* target amount (e.g. a sales amount target), then applies the same trend to the *x-value* range to work out the date that target will be reached. The values in the *x-value* range must be numbers, otherwise the function will return a #VALUE! Error.

In this example, we'll be using the following data table which lists sales dates from the end of the month, and the value of those sales for that month. We'll use the FORECAST function to determine on what date sales will exceed \$2000.

	A	B	C	D	E
1	Date	Amount		Target	Estimated Date
2	30-Sep-10	1250		2000	
3	31-Oct-10	1370			
4	30-Nov-10	1300			
5	31-Dec-10	1500			
6	31-Jan-11	1620			
7	28-Feb-11	1520			
8	31-Mar-11	1780			
9	30-Apr-11	1820			
10					
11					
12					

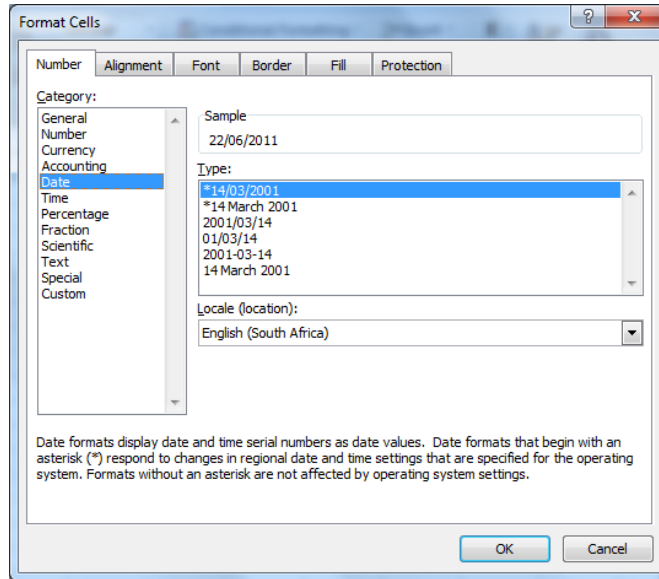
1. Select cell E2
2. Type in =FORECAST(D2,A2:A9,B2:B9) and press *Enter*

	A	B	C	D	E	F	G
1	Date	Amount		Target	Estimated Date		
2	30-Sep-10	1250		2000	=FORECAST(D2,A2:A9,B2:B9)		
3	31-Oct-10	1370					
4	30-Nov-10	1300					
5	31-Dec-10	1500					
6	31-Jan-11	1620					
7	28-Feb-11	1520					
8	31-Mar-11	1780					
9	30-Apr-11	1820					
10							

3. The formula returns a value of 40716.54041.

	A	B	C	D	E
1	Date	Amount		Target	Estimated Date
2	30-Sep-10	1250		2000	40716.54041
3	31-Oct-10	1370			
4	30-Nov-10	1300			
5	31-Dec-10	1500			
6	31-Jan-11	1620			
7	28-Feb-11	1520			
8	31-Mar-11	1780			
9	30-Apr-11	1820			
10					

4. We can now format this number to return a date value. While cell E2 is still selected, press CTRL + 1. This will bring up the 'Format Cells' window. On the 'Number' tab, select the 'Date' option in the left hand menu, then your desired date format on the right, the click OK.



5. The number will now be converted to a date and we can see that sales are estimated to exceed \$2000 on 22nd June, 2010

	A	B	C	D	E
1	Date	Amount		Target	Estimated Date
2	30-Sep-10	1250		2000	22/06/2011
3	31-Oct-10	1370			
4	30-Nov-10	1300			
5	31-Dec-10	1500			
6	31-Jan-11	1620			
7	28-Feb-11	1520			
8	31-Mar-11	1780			
9	30-Apr-11	1820			
10					

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.

Alchemex provides examples of MS Excel procedures for illustration only, without warranty either expressed or implied, including but not limited to the implied warranties of merchantability and/or fitness for a particular purpose. The MS Excel procedures on this web site are provided "as is" cannot be guaranteed that they can be used in all situations