

Re: TRUNC Function

Source: <http://www.tech-archive.net/Archive/Excel/microsoft.public.excel.misc/2004-02/3087.html>

From: Mark Graesser (*anonymous_at_discussions.microsoft.com*)

Date: 02/18/04

Date: Wed, 18 Feb 2004 11:51:13 -0800

Dani,

.1833 times 60 equals 10.9998. No matter how many times you repeat the 3 it still comes up less than 11.

Try the following three formulas

=TRUNC(A1) degrees

=TRUNC(MOD(A1,1)*60) minutes

=TRUNC(MOD(MOD(A1,1)*60,1)*60) seconds

If you prefer you can round the seconds:

=ROUND((MOD(MOD(A1,1)*60,1)*60),)

But now you have a problem when the seconds round up to 60. You would then need to change the minute formula to:

=IF(ROUND((MOD(MOD(A1,1)*60,1)*60),)=60,ROUND((MOD(A1,1)*60),),TRUNC(MOD(A1,1)*60))

and to get the seconds to return 0 instead of 60, change the seconds formula to:

=IF(ROUND((MOD(MOD(A1,1)*60,1)*60),)=60,0,ROUND((MOD(MOD(A1,1)*60,1)*60),))

Hope this helps.

Good Luck,

Mark Graesser

mark_graesser@yahoo.com

----- Dani wrote: -----

Alright, the problem I have is that I have a series of numbers as below:

115.18333

95.00000

129.81667

130.60000

110.49444

138.90556

These are angles in decimal degrees. I want to transform them into degrees minutes and seconds (i.e truncate the value before the decimal as degrees, multiply the remaining decimal by 60, truncate that as minutes and multiply the remainder by 60 for seconds). It truncates the first part fine but when I try to truncate the minutes (after multiplication), the first one comes up as 10 instead of 11 (I know it should be 11) unless I increase the precision of the truncate function. But if I do that then the 5th one rounds to 30 instead of 29. I need it to work consistently. This is the answers I should be getting and do using a calculator:

115 11 0
95 0 0
129 49 0
130 36 0
110 29 40
138 54 20

I have tested it using a calculator and I can see how it would truncate to 10 (on the first one) if the number is not held to its full precision in the calculator memory. That is why I suspect it is a precision issue.

>-----Original Message-----

>Can you give an example?

>I only know that it rounds up when the value is negative

>>--

>>Regards,

>>Peo Sjoblom

>>>"Dani" <anonymous@discussions.microsoft.com> wrote in message

>news:125df01c3f64e5c5c91ec05a001280a@phx.gbl...

>> I find that when I use the truncate function in Excel, it

>> sometime rounds the data up, sometimes not. In the true

>> sense it should never round the number. I suspect it has

>> something to do with the precision of the stored number.

>> I know I can reduce the precision of the stored data but

I

>> was wondering if there was anyway of increasing it?

>>>.

>