

Lesson 4 Time Functions

Time Functions

HOUR – Returns the hour of a time value.

Syntax- **HOUR(serial-number)**

Serial_Number the time that contains the hour you want to find.

Remarks: Times may be entered as text strings, within quotation marks (for example, "6:45PM"), as decimal numbers (for example, 0.78125, which represents 6:45PM), or as results of other formulas or functions (for example, **TIMEVALUE**("6:45"PM)).

| Equation | Result | Notes |
|-----------|--------|---------------------|
| =HOUR(A1) | 20 | A1 = 8:28 PM |
| =HOUR(B1) | 8 | B1 = 8:28 AM |
| =HOUR(C1) | 15 | C1 = 15:43:12 |
| =HOUR(D1) | 17 | D1 = 1/2/2003 17:52 |

MINUTE: Returns the hour of a time value.

Syntax: **MINUTE (serial-number)**.

Serial_Number the time that contains the hour you want to find.

Remarks: Times may be entered as text strings with quotation marks (for example, "6:45PM), as decimal numbers (for example, 0. 78125, which represents 6:45PM, or as results of other formulas as functions(for example, **TIMEVALUE**("6:45PM"))).

| Equation | Result | Notes |
|-------------|--------|---------------------|
| =MINUTE(A1) | 28 | A1 = 8:28 PM |
| =MINUTE(C1) | 43 | C1 = 15:43:12 |
| =MINUTE(D1) | 52 | D1 = 1/2/2003 17:52 |

NOW -the serial number of the current date and time.

Syntax: **NOW()**

| Equation | Result | Notes |
|----------|----------------|--|
| =NOW() | 3/7/2009 11:02 | This will always be the current date/time. |

SECOND – Returns the Seconds of a time value.

Syntax – **SECOND(serial_number)**

Serial_Number the time that contains the hour you want to find.

Remarks: Times may be entered as text strings, within quotation marks(for example,"6:45PM"). As decimal numbers (for example,.78125,which represents 6:45PMK),or as results of other formulas or functions (for example, TIMEVALUE("6:45PM")).

| Equation | Result | Notes |
|-------------|--------|------------------------|
| =SECOND(A1) | 0 | A1 = 8:28 PM |
| =SECOND(C1) | 12 | C1 = 15:43:12 |
| =SECOND(D1) | 15 | D1 = 1/2/2003 17:52:15 |

TIME- Returns the sequential serial number that represents a particular time.

Syntax: **TIME(hour, minute, second)**

Hour : It is a number from 0 (zero) to 32767 representing the hour. Any value greater than 23 will be divided by 24 and the remainder will be treated as the hour value.

Minute: is a number from 0 to 32767 representing the minute. Any value greater than 59 will be converted to hours and minutes.

Seconds: is a number from 0 to 32767 representing the second. Any value greater than 59 will be converted to hours, minutes, seconds.

| Equation | Result | Notes |
|-------------------|-------------|-------------------------------|
| =TIME(15, 3, 15) | 3:03:20 PM | |
| =TIME(0, 0, 2000) | 12:33:20 AM | 2000 seconds = 33 min, 20 sec |
| =TIME(C1, C2, C3) | 6:12:09 AM | |

TIMEVALUE- Returns the serial number of a time.

Converts a time that is stored as text to a serial number that Excel recognizes as a time. To view a time serial number as a time you must avoid a time format to the cell.

Syntax : **TIMEVALUE(time_text)**

time_text represents a time between **01/01/1900 and 01/01/9999**

| Equation | Result | Notes |
|----------------------------|-------------|----------------------------|
| =TIMEVALUE("3:03:20 PM ") | 0.627314815 | |
| =TIMEVALUE("12:33:20 AM ") | 0.023148148 | |
| =TIMEVALUE(A1) | #VALUE! | A1 = 6:12:09 AM (not text) |
| =TIMEVALUE(A1) | 0.2584375 | A1 = "6:12:09 AM " |

DATEDIF Function

There is a “hidden” function that can find the difference between two dates and return different increments. When you subtract two dates you get the number of days between them. The DateIF Function is not in the help files or list of formats but is probably one of the most powerful date related worksheet Functions.

Syntax: DATEIF(Begin Date End Date ,“interval”)

| A | B | C |
|---|------------|----------------------------|
| 1 | Begin Date | End Date |
| 2 | 1/2/2013 | 5/15/2015 |
| 3 | | |
| 4 | Result | Difference |
| 5 | 863 | Days =DATEDIF(A2,B2,"d") |
| 6 | 28 | Months =DATEDIF(A2,B2,"m") |
| 7 | 2 | Years =DATEDIF(A2,B2,"y") |

| Interval | Description |
|----------|---|
| D | Number of Days |
| M | Number of Months |
| Y | Number of Years |
| YM | Number of months, not counting years |
| YD | Number of days, not counting years |
| MD | Number of days, not counting years and months |

Questions.

1. Explain the following terms:

HOUR

MINUTE

NOW

DATEIF FUNCTION

TIMEVALUE.