



## hp calculators

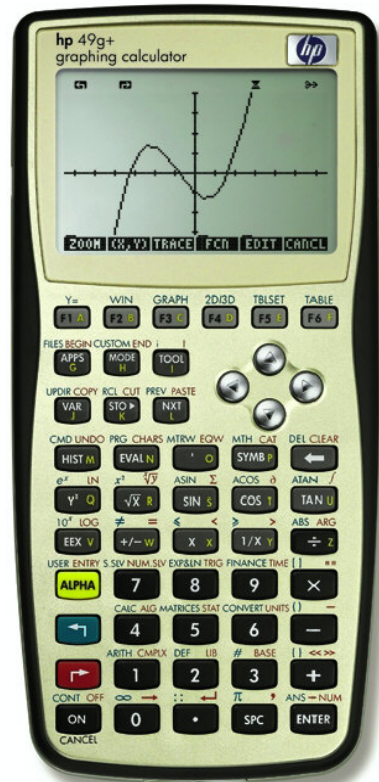
HP 49G+ Date calculations

The TIME menu

Adding days to a date

Days between dates

Practice solving date problems



## The TIME menu

The TIME menu is the RED shifted function of the  $\boxed{9}$  key and is accessed by pressing  $\boxed{\rightarrow}$  TIME. When accessed, a scrolling menu is displayed containing time and date functions. The first two functions deal with browsing and setting alarm reminders. The third function allows the user to change the date and time of the calculator. The fourth function, TOOLS, allows the user access to a second scrolling CHOOSE box with many time and date functions displayed.



Figure 1

To calculate the number of days between two dates, press the  $\boxed{\nabla}$  key until the fourth choice TOOLS is highlighted and press the  $\boxed{F6}$  key to register the choice of  $\boxed{\text{TOOLS}}$  shown above the  $\boxed{F6}$  key at the right side of the display. The  $\boxed{\text{ENTER}}$  key can also be used to make selections from a CHOOSE box and will be used below. Alternatively, since the TOOLS choice is the fourth item in the list, the  $\boxed{4}$  key can be pressed to immediately choose this function.



Figure 2

## Adding days to a date

The function DATE+, which is in position 7 of the TOOLS CHOOSE box, will add a number of days to a date. With the TOOLS menu first displayed, the DATE+ function can be accessed by pressing the  $\boxed{7}$  key, which will automatically skip down to position 7 of the CHOOSE box. It can also be accessed by pressing the  $\boxed{\nabla}$  key until the DATE+ function is highlighted. Then, press the  $\boxed{F6}$  key to register the choice of  $\boxed{\text{DATE+}}$  shown above the  $\boxed{F6}$  key at the right side of the display.



Figure 3

In algebraic mode, the display will now show:



Figure 4

The function DATE+ expects 2 arguments inside the parentheses. The first argument should be the date to which you are adding a number of days. The second argument should be the number of days being added to the date. Once the 2 arguments are present, pressing the  $\boxed{\text{ENTER}}$  key will calculate the number of days between the two dates.

In RPN mode, the calculator expects be the date to which you are adding a number of days on the second level of the stack with the number of days being added to that date on the first level of the stack, prior to the execution of the DATE+ function.

## Days between dates


The function D DAYS, which is in position 8 of the TOOLS CHOOSE box, will calculate the number of days between two dates. With the TOOLS menu first displayed, the D DAYS function can be accessed by pressing the **(8)** key, which will automatically skip down to position 8 of the CHOOSE box. It can also be accessed by pressing the **(V)** key until the D DAYS function is highlighted. Then, press the **(F6)** key to register the choice of  shown above the **(F6)** key at the right side of the display.



Figure 5

In algebraic mode, the display will now show:

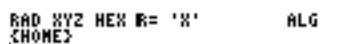


Figure 6

The function D DAYS expects 2 arguments inside the parentheses, in this case dates separated by a comma. Once the 2 arguments are present, pressing the **(ENTER)** key will calculate the number of days between the two dates.

In RPN mode, the calculator expects the two dates to already be present on the first two levels of the stack prior to the execution of the D DAYS function.

If the order of the dates is presented with the most recent date as the first argument for the function, the number of days will be expressed as a negative number.

## Practice solving date problems

**Example 1:** How many days are between November 10, 2003 and September 9, 2004?

**Solution:** In algebraic mode, **(P)** **TIME** **(V)** **(V)** **(V)** **(ENTER)** **(V)** **(V)** **(V)** **(V)** **(V)** **(V)** **(ENTER)**  
**(1)** **(/)** **(0)** **(2)** **(0)** **(0)** **(3)** **(P)** **,** **(9)** **(.)** **(0)** **(9)** **(2)** **(0)** **(0)** **(4)** **(ENTER)**

In RPN mode, **(1)** **(/)** **(0)** **(2)** **(0)** **(0)** **(3)** **(ENTER)** **(9)** **(.)** **(0)** **(9)** **(2)** **(0)** **(0)** **(4)**  
**(P)** **TIME** **(V)** **(V)** **(V)** **(ENTER)** **(V)** **(V)** **(V)** **(V)** **(V)** **(V)** **(ENTER)**

**Answer:** 304 days

**Example 2:** How many days are between July 4, 1776 and July 4, 2004?

**Solution:** In algebraic mode, **(P)** **TIME** **(V)** **(V)** **(V)** **(ENTER)** **(V)** **(V)** **(V)** **(V)** **(V)** **(V)** **(ENTER)**  
**(7)** **(.)** **(0)** **(4)** **(/)** **(7)** **(7)** **(6)** **(P)** **,** **(7)** **(.)** **(0)** **(4)** **(2)** **(0)** **(0)** **(4)** **(ENTER)**

In RPN mode, **(7)** **(.)** **(0)** **(4)** **(/)** **(7)** **(7)** **(6)** **(ENTER)** **(7)** **(.)** **(0)** **(4)** **(2)** **(0)** **(0)** **(4)**  
**(P)** **TIME** **(V)** **(V)** **(V)** **(ENTER)** **(V)** **(V)** **(V)** **(V)** **(V)** **(V)** **(ENTER)**

**Answer:** 83,275 days

**Example 3:** What date is 1,000 days after September 30, 2003?

**Solution:** In algebraic mode, **(P)** **TIME** **(4)** **(ENTER)** **(7)** **(ENTER)** **(9)** **(.)** **(3)** **(0)** **(2)** **(0)** **(0)** **(3)**

$\rightarrow$  —, 1 0 0 0 ENTER

In RPN mode, 9 . 3 0 2 0 0 3 ENTER 1 0 0 0  
 $\rightarrow$  TIME 3 ENTER 7 ENTER

Answer: May 30, 2006

Example 4: What date is 5,000 days after January 1, 2000?

Solution: In algebraic mode,  $\rightarrow$  TIME 4 ENTER 7 ENTER 1 . 0 1 2 0 0 1  
 $\rightarrow$  —, 5 0 0 0 ENTER

In RPN mode, 1 . 0 1 2 0 0 1 ENTER 5 0 0 0  
 $\rightarrow$  TIME 3 ENTER 7 ENTER

Answer: September 9, 2013