

# Calendar Functions

The HP-12C calculator provides two calendar functions to perform dates related calculations, the **g** **DATE** and **g** **ΔDYS** commands. For each of them, the dates input and calculations uses one of two formats, The Month-Day-Year (M.DY) format or the Day-Month-Year (D.MY) format.

## **Month-Day-Year:**

To set the M.DY format press **g** **M.DY** .

To enter a date in this format:

- 1) Type the one or two digits of the month, (1 to 12).
- 2) Press the decimal point key, **.** .
- 3) Type two digits for the day, (01 to 31).
- 4) Type the four digits of the year.

For example, to enter the date May 21<sup>st</sup>, 2012, type **5.212012**

## **Day-Month-Year:**

To set the D.MY format press **g** **D.MY** .When this format is in effect, the **D.MY** status indicator in the display is lit.

To enter a date in this format:

- 1) Type the one or two digits of the day, (1 to 31).
- 2) Press the decimal point key, **.** .
- 3) Type two digits for the month, (01 to 12).
- 4) Type the four digits of the year.

For example, to enter the date May 21<sup>st</sup>, 2012, type **21.052012**

## **g** **DATE** Calendar Function

This function key calculates a new date adding the number of days in the stack-X to the date entered in the stack-Y.

The resulting new date in stack-X is displayed using the date format in effect and showing in the right most digit the code for the day of the week (1 for Monday through 7 for Sunday).

### **Example:** **g** **DATE**

What date was 1000 days ago if today is december 29<sup>th</sup>, 2011 ?.

### **(in M.DY mode)**

Keystrokes	Description
<b>g</b> <b>M.DY</b>	Set Month-Day-Year format.
Type "12.292011" <b>ENTER</b>	Type the date and press "ENTER" (or "=" in ALG mode).
Type "1000" <b>CHS</b>	Type the Number of Days and change its sign (negative value because is 1000 days ago).
<b>g</b> <b>DATE</b>	Calculates the new date displaying "04,03,2009 5" which stands for <b>Friday, April 3<sup>rd</sup>, 2009</b> .

### **(in D.MY mode)**

Keystrokes	Description
<b>g</b> <b>D.MY</b>	Set Day-Month-Year format.
Type "29.122011" <b>ENTER</b>	Type the date and press "ENTER" (or "=" in ALG mode).
Type "1000" <b>CHS</b>	Type the Number of Days and change its sign (negative value because is 1000 days ago).
<b>g</b> <b>DATE</b>	Calculates the new date displaying "03,04,2009 5" which stands for <b>Friday, April 3<sup>rd</sup>, 2009</b> .

## **g** **ΔDYS** Calendar Function

This function key calculates the number of days from a date value in stack-Y to a date value in stack-X. The calculation is performed simultaneously in the actual and 30/360 calendars.

### **Example:** **g** **ΔDYS**

What is the number of days elapsed since the beginning of XXI century if today is Jun 23, 2012 ?.

#### **(in M.DY mode)**

Keystrokes	Description
<b>g</b> <b>M.DY</b>	Set Month-Day-Year format.
Type "12.311999" <b>ENTER</b>	Type the initial date and press "ENTER" (or "=" in ALG mode).
Type "6.232012"	Type the end date.
<b>g</b> <b>ΔDYS</b>	Calculates the number of days between the two dates using the actual calendar. <b>Result = 4,558</b>
<b>x≤y</b>	Shows the number of days between the two dates using 30/360 days calendar. <b>Result = 4,493</b>

#### **(in D.MY mode)**

Keystrokes	Description
<b>g</b> <b>D.MY</b>	Set Day-Month-Year format.
Type "31.121999" <b>ENTER</b>	Type the initial date and press "ENTER" (or "=" in ALG mode).
Type "23.062012"	Type the end date.
<b>g</b> <b>ΔDYS</b>	Calculates the number of days between the two dates using the actual calendar. <b>Result = 4,558</b>
<b>x≤y</b>	Shows the number of days between the two dates using 30/360 days calendar. <b>Result = 4,493</b>