

DATDIF and YRDIF Functions

The DATDIF and YRDIF functions calculate the difference in days and years between two SAS dates, respectively. Both functions accept start dates and end dates that are specified as SAS date values. Also, both functions use a basis argument that describes how SAS calculates the date difference.

General form, DATDIF and YRDIF functions:

`DATDIF(start_date, end_date, basis)`

`YRDIF(start_date, end_date, basis)`

where

- start_date specifies the starting date as a SAS date value
- end_date specifies the ending date as a SAS date value
- basis specifies a character constant or variable that describes how SAS calculates the date difference.



There are two character strings that are valid for basis in the DATDIF function and four character strings that are valid for basis in the YRDIF function. These character strings and their meanings are listed in the table below.

Character String	Meaning	Valid in DATDIF	Valid in YRDIF
'30/360'	specifies a 30 day month and a 360 day year	yes	yes
'ACT/ACT'	uses the actual number of days or years between dates	yes	yes
'ACT/360'	uses the actual number of days between dates in calculating the number of years (calculated by the number of days divided by 360)	no	yes
'ACT/365'	uses the actual number of days between dates in calculating the number of years (calculated by the number of days divided by 365)	no	yes



The best way to understand the different options for the basis argument is to see the different effects that they have on the value that the function returns. The table below lists four YRDIF functions that use the same start_date and end_date. Each function uses one of the possible values for basis, and each one returns a different value.

YRDIF Statement	Returned Value
<code>yrdif('16oct1998'd,'16feb2003'd,'30/360')</code>	4.333333333
<code>yrdif('16oct1998'd,'16feb2003'd,'ACT/ACT')</code>	4.3369863014
<code>yrdif('16oct1998'd,'16feb2003'd,'ACT/360')</code>	4.4
<code>yrdif('16oct1998'd,'16feb2003'd,'ACT/365')</code>	4.3397260274

