Using Date Functions

Scenario

Use date functions to manipulate existing date values.

Files

- **p104d04.sas**
- **storm_damage** – a SAS table that contains a description and damage estimates for storms in the US with damages greater than one billion dollars

Syntax

YEAR(*SAS-date*)
MONTH(*SAS-date*)
DAY(*SAS-date*)
WEEKDAY(*SAS-date*)

TODAY()
MDY(*month, day, year*)
YRDIF(*startdate*, *enddate*, 'AGE')

Notes

- The YEAR, MONTH, DAY, and WEEKDAY functions return a numeric value. For WEEKDAY, 1 represents Sunday.
- The TODAY function returns the current date based on the system clock as a SAS date value.
- The MDY function creates a SAS date based on numeric month, day, and year values.
- The YRDIF function calculates a precise age between two dates. There are various values for the third argument. However, 'AGE' should be used for accuracy.

Demo

1. Open **p104d04.sas** from the **demos** folder and find the **Demo** section of the program. Create the column **YearsPassed** and use the YRDIF function. The difference in years should be based on each **Date** value and today's date.
2. Create **Anniversary** as the day and month of each storm in the current year.
3. Format **YearsPassed** to round the value to one decimal place, and **Date** and **Anniversary** as MM/DD/YYYY. Highlight the DATA step and run the selected code.

```
data storm_damage2;
    set pg1.storm_damage;
    drop Summary;
    *Add assignment and FORMAT statements;
    YearsPassed=yrdif(Date,today(),'age');
    Anniversary=mdy(month(Date),day(Date),year(today()));
    format YearsPassed 4.1 Date Anniversary mmddyy10.;
run;
```

Note: Values for **YearsPassed** and **Anniversary** will be different based on the current date.

	Event	Date	Cost	Deaths	YearsPassed	Anniversary
1	Hurricane Katrina	08/25/2005	161300000000	1833	12.6	08/25/2018
2	Hurricane Harvey	08/25/2017	125000000000	89	0.6	08/25/2018
3	Hurricane Maria	09/19/2017	90000000000	65	0.5	09/19/2018
4	Hurricane Sandy	10/30/2012	70900000000	159	5.4	10/30/2018
5	Hurricane Irma	09/06/2017	50000000000	97	0.6	09/06/2018
6	Hurricane Andrew	08/23/1992	48300000000	61	25.6	08/23/2018
7	Hurricane Ike	09/12/2008	35100000000	112	9.6	09/12/2018
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

End of Demonstration