```
* SAS Functions;
/*
These functions are used as part of the DATA statements
 They take the data variables as arguments and return the result which is
 stored into another variable. Depending on the type of function, the number
 of arguments it takes can vary. Some functions accept zero arguments while
 some other accept fixed number of variables.
Below is a list of types of functions SAS provides.

Syntax: FUNCTIONNAME(argument1, argument2...argumentn)
*/
*Function Categories
Depending on their usage, the functions in SAS are categorised as below.

    Mathematical
    Date and Time
    Character
    Truncation
    Miscellaneous
;
*Mathematical Functions;
data Math_Functions;
    v1=21; v2=42; v3=13; v4=10; v5=29;
    max_val = MAX(v1,v2,v3,v4,v5);
    min_val = MIN (v1,v2,v3,v4,v5);
    med_val = MEDIAN (v1,v2,v3,v4,v5);
    rand_val = RANUNI(0);
    SR_val= SQRT(sum(v1,v2,v3,v4,v5));
proc print data = Math_functions noobs;
run;

*Date and Time Functions;

data date_functions;
INPUT @1 date1 date9. @11 date2 date9.;
format date1 date9.  date2 date9.;

/* Get the interval between the dates in years*/
Years_ = INTCK('YEAR',date1,date2);

/* Get the interval between the dates in months*/
months_ = INTCK('MONTH',date1,date2);

/* Get the week day from the date*/
weekday_ =  WEEKDAY(date1);

/* Get Today's date in SAS date format */
today_ = TODAY();

/* Get current time in SAS time format */
time_ = time();
DATALINES;
15DEC2000 09SEP2022
01MAR2009 11JUL2012
;
proc print data = date_functions noobs;
run;


*Character Functions;
data character_functions;
```

```
/* Convert the string into lower case */
lowcse_ = LOWCASE('HELLO');

/* Convert the string into upper case */
upcase_ = UPCASE('hello');

/* Reverse the string */
reverse_ = REVERSE('Hello');

/* Return the nth word */
nth_letter_ = SCAN('Learn SAS Now',2);
run;

proc print data = character_functions noobs;
run;

*Truncation Functions;
data trunc_functions;

/* Nearest greatest integer */
ceil_ = CEIL(11.85);

/* Nearest greatest integer */
floor_ = FLOOR(11.85);

/* Integer portion of a number */
int_ = INT(32.41);

/* Round off to nearest value */
round_ = ROUND(5621.78);
run;

proc print data = trunc_functions noobs;
run;

*Miscellaneous Functions;
data misc_functions;

/* Nearest greatest integer */
state2=zipstate('01040');

/* Amortization calculation */
payment = mort(50000, . , .10/12,30*12);

proc print data = misc_functions noobs;
run;
```