```
1  ************************************************************;
2  * Using Character Functions                                *;
3  ************************************************************;
4  *   Syntax and Example                                     *;
5  *     DATA output-table;                                   *;
6  *         SET input-table;                                 *;
7  *         new-column=function(arguments);                  *;
8  *     RUN;                                                 *;
9  *                                                          *;
10 *  Numeric Functions:                                      *;
11 *    SUM(num1, num2, ...)                                  *;
12 *    MEAN(num1, num2, ...)                                 *;
13 *    MEDIAN(num1, num2, ...)                               *;
14 *    RANGE(num1, num2, ...)                                *;
15 *                                                          *;
16 *  Character Functions:                                    *;
17 *    UPCASE(char)                                          *;
18 *    PROPCASE(char, <delimiters>)                          *;
19 *    CATS(char1, char2, ...)                               *;
20 *    SUBSTR(char, position, <length>)                      *;
21 ************************************************************;
22
23 ------------------------------------------------------------
24 data cars_new;
25     set sashelp.cars;
26     MPG_Mean=mean(MPG_City, MPG_Highway);
27     Type=upcase(Type);
28     format MPG_Mean 4.1;
29     keep Make Model MSRP Invoice MPG_Mean Type;
30 run;
31
32 ************************************************************;
33 *  Demo                                                    *;
34 *    1) Add an assignment statement to convert Basin to    *;
35 *       all uppercase letters using the UPCASE function.   *;
36 *    2) Add an assignment statement to convert Name to     *;
37 *       proper case using the PROPCASE function.           *;
38 *    3) Add an assignment statement to create Hemisphere,  *;
39 *       which concatenates Hem_NS and Hem_EW using the     *;
40 *       CATS function.                                     *;
41 *    4) Add an assignment statement to create Ocean,       *;
42 *       which extracts the second letter of Basin using    *;
43 *       the SUBSTR function. Highlight the DATA step and   *;
44 *       run the selected code.                             *;
45 ************************************************************;
46
47 ------------------------------------------------------------
48 data storm_new;
49     set pg1.storm_summary;
50     drop Type Hem_EW Hem_NS MinPressure Lat Lon;
51     *Add assignment statements;
52     Basin =upcase(Basin);
```

```
53      Name = propcase(Name);
54      Hemisphere=cats(Hem_NS,HEM_EW);
55      Ocean = substr(Basin,2,1);
run;
```