```
1  ************************************************************;
2  *  Using Numeric Functions                                 *;
3  ************************************************************;
4  *  Syntax                                                  *;
5  *                                                          *;
6  *    RAND ('distribution', parameter1, ...parameterk)      *;
7  *    LARGEST (k, value-1 <, value-2 ...>)                  *;
8  *    ROUND (number <,rounding-unit>)                       *;
9  ************************************************************;
10
11 ************************************************************;
12 *  Demo                                                    *;
13 *  1) Copy and paste the Quiz1st assignment statement      *;
14 *     twice and modify the statements to create columns    *;
15 *     named Quiz2nd and Quiz3rd.                           *;
16 *  2) Create a new column named Top3Avg that uses the      *;
17 *     MEAN function with the top three quiz scores as the  *;
18 *     arguments.                                           *;
19 *  3) Add Name in the DROP statement.                      *;
20 *  4) Before the SET statement, create a new column named  *;
21 *     StudentID. Use the RAND function with 'INTEGER' as   *;
22 *     the first argument. This generates random integers   *;
23 *     between the values specified in the second and       *;
24 *     third arguments. To create a four-digit number, use  *;
25 *     1000 as the lower limit and 9999 as the upper        *;
26 *     limit. Highlight the DATA step and run the selected  *;
27 *     code.                                                *;
28 *  5) Modify the Top3Avg assignment statement to use the   *;
29 *     ROUND function to round the values returned by the   *;
30 *     MEAN function to the nearest integer. Highlight the  *;
31 *     DATA step and run the selected code.                 *;
32 *  6) Add a second argument in the ROUND function to       *;
33 *     round values to the nearest .1. Highlight the DATA   *;
34 *     step and run the selected code.                      *;
35 ************************************************************;
36
37
38 data quiz_analysis;
39     StudentID =rand("Integer",1000,9999);
40     set pg2.class_quiz;
41     drop Quiz1-Quiz5 Name;
42     Quiz1st=largest(1, of Quiz1-Quiz5);
43     Quiz2nd=largest(2, of Quiz1-Quiz5);
44     Quiz3rd=largest(3, of Quiz1-Quiz5);
45     Top3Avg=round(mean(Quiz1st,Quiz2nd,Quiz3rd),0.1);
46 run;
47
```