How to Generate Uniform Random Numbers in SPSS

Say we want to generate 12 numbers uniformly (randomly) from (0, 1).

1. Start up SPSS, if you haven’t already.
2. Go to the Variable View, choose a variable, and type in a name for your variable (like, Rndm Nmbrs, or whatever you like). Set the Decimals to 4 for that variable. This will make SPSS round your random numbers to 4th decimal place.
3. To the far right of the Variable View, you’ll find a column labeled Measure. Set this to “Scale.” (This tells SPSS we’ll be putting numbers in the variable we’re setting up.)
4. Go back to the Data View. Go to the column (variable) you’ve chosen, and put any number at all in the 12th row of that column. This tells SPSS that you want 12 random numbers.
5. In the Transform menu, click Compute variable. . . .
6. In the Target Variable box, type the name of the column where your random numbers go (the Rndm Nmbrs column, in this example).
7. Go to the Function group box, and select Random Numbers. A list of types of random numbers will appear in the box below the Function group box.
8. Double-click Rv.Uniform in the list of types of random numbers. Here’s what will appear in the Numeric Expression box: RV.UNIFORM(? ,?).
9. In the expression RV.UNIFORM(? ,?), replace the left-hand ? with the number 0, and replace the righthand ? with the number 1. (This tells SPSS that you want random numbers between 0 and 1.)
10. Click OK. A message pop-up will appear, asking, “Change the existing variable?”
11. Click OK. What happens next depends on which version of SPSS you have. For some of you, you’ll just see that your Rndm Nmbrs column now has 12 numbers in it, and they’ll all be between 0 and 1. For the rest of you, the SPSS Output window will appear, with the message COMPUTE Rndm Nmbrs = RV.UNIFORM(0,1). EXECUTE. This tells you that SPSS succeeded in generating your random numbers. To see your random numbers, go back to the Data View in the window where you entered your data.

To do the random assignment of 12 units to 3 groups:

12. Save ranks of your random number in another column by
   Transform >> Rank Cases; select your Rndm Nmbrs column and click OK. The column of rank will appear.
13. Add a column “Group” and type 1 for ranks 1 to 4; 2 for ranks 5 to 8; 3 for ranks 9 to 12:
   Transform >> recode into difference variables >> select your rank column; name an output variable say “Group” and click change; click “old and new value”: in the pop-up window specify the range for group 1: 1 and 4, and in new value blank type 1 and click “add”; repeat this for all groups. Click OK or continue for all windows and you will see the Group column.