```
1  **********************************************************;
2  *   LESSON 5, PRACTICE 3                               *;
3  *     a) Highlight the first TITLE statement and PROC FREQ *;
4  *        step, run the selected code, and examine the  *;
5  *        generated plot. The program subsets the       *;
6  *        PG1.NP_CODELOOKUP table for three park types:  *;
7  *        National Historic Site, National Monument, and *;
8  *        National Park. The plot uses a stacked layout  *;
9  *        with a horizontal orientation.                 *;
10 *     b) To create a more customized frequency bar chart, *;
11 *        the SGPLOT procedure can be used with the      *;
12 *        pg1.np_codelookup table. Examine the PROC SGPLOT *;
13 *        step in the demo program.                      *;
14 *        1) The HBAR statement creates a horizontal bar *;
15 *           chart with separate bars for each Region. The *;
16 *           GROUP= option segments each bar by the      *;
17 *           distinct values of Type.                    *;
18 *        2) The KEYLEGEND statement customizes the      *;
19 *           appearance and position of the legend.      *;
20 *        3) The XAXIS statement adds reference lines on *;
21 *           the horizontal axis.                        *;
22 *     c) Use SAS Help or autocomplete prompts to look for *;
23 *        additional options in the HBAR statement to    *;
24 *        customize the appearance of the chart.         *;
25 *        1) Display labels on each segment of the bars. *;
26 *        2) Change the fill attributes for each bar to  *;
27 *           make the color 50% transparent.             *;
28 *        3) Apply different values for the DATASKIN option *;
29 *           to change the color effect on the bars.     *;
30 **********************************************************;
31
32
33 title1 'Counts of Selected Park Types by Park Region';
34 ods graphics on;
35 proc freq data=pg1.np_codelookup order=freq;
36     tables Type*Region / crosslist plots=freqplot(twoway=stacked orient=horizontal);
37     where type in ('National Historic Site', 'National Monument', 'National Park');
38 run;
39
40 /*part b*/
41 title1 'Counts of Selected Park Types by Park Region';
42 proc sgplot data=pg1.np_codelookup;
43     where Type in ('National Historic Site', 'National Monument', 'National Park');
44     hbar region / group=type;
45     keylegend / opaque across=1 position=bottomright location=inside;
46     xaxis grid;
47 run;
48
49
50 title1 "Categories of Reported Species";
51 proc freq data=pg1.np_species order=freq;
52     tables Category /nocum;
   run;
```