Activity 1  **An Illustrator’s Dilemma**

Color the eleven regions of the bear using as few colors as possible. Remember that neighboring parts must have different colors.
How many colors did you use? ____________

How do you know that you can’t color the bear using fewer colors? ____________________

______________________________

______________________________

______________________________
Activity 2  **Coloring the Map of the Western States**

Can you color the twenty-two states west of the Mississippi River using a small number of colors? (Remember, if any two states share a border, they must have different colors.)

Since you will want to experiment with your colors, it might be simplest to pencil lightly in each state a letter R, W, B, P, Y, etc. (for red, white, blue, purple, yellow, etc.). Then, if you change your mind about what color to assign a state, you will be able to change it easily.

What’s the smallest number of colors with which you were able to color the map? ______

How do you know that you can’t color this portion of the US map using fewer colors?

______________________________________________________________

______________________________________________________________

______________________________________________________________
Activity 3  Coloring Four Regions of the United States

Can you color the states in each of these maps using three colors – say red, white, and blue? Remember, any two states that share a common border must have different colors so that you can tell where one state ends and the other begins. If you can’t color a map using three colors, what is the fewest number of colors needed?

Map A

Map B

Map C

Map D

What is the smallest number of colors needed to color Map A? _____ Why can’t you use one fewer color? 

What is the smallest number of colors needed to color Map B? _____ Why can’t you use one fewer color? 

What is the smallest number of colors needed to color Map C? _____ Why can’t you use one fewer color? 

What is the smallest number of colors needed to color Map D? _____ Why can’t you use one fewer color?