Vacation Activity with Hamiltonian Circuits

1. Fold paper in to thirds
2. Label the first sections in order of BF, NN and SE
3. Select four cities, one of which must be Charlotte. The other three are of your choice and all cities must be labeled on the map.
4. Make a **COMPLETE** graph with these four cities.
5. Label the weights (distances) between the cities. You will need to look this up. No decimals. **Round distances to the nearest mile**.
6. Color in the states of the cities you chose. Obviously, you will all have to color in N.C because everyone must choose Charlotte as one of the four cities.
7. You are planning a trip and want to visit three cities that intrigue you. For our scenario, you all live in Charlotte. This will be your starting/reference point for any method that requires you to have a starting point. Your task is to find the Least Cost H.C for each of the three methods in step 2.
8. Make sure that you clearly show all work, **ESPECIALLY**, WITH BF. Make sure to label all branches of the tree diagram and highlight circuits that are of least cost. For the other two methods, make a small graph in each section, labeled appropriately, of your four cities so you can clearly identify with wiggles (NN) or making a separate graph (SE).
9. For each of the three methods, indicate somewhere in each section the Lowest Cost H.C and what that distance would be.
10. *After you have done all the math stuff required, please feel free to add any flair to your map to personalize it or show off your artistic ability. If you do not have any artistic ability you must at the minimum have your states colored in.*
11. Please ask any questions along the way to ensure that you are doing this properly.
12. Have fun!