**CS302: Homework 7**

Let’s take a trip.

**Exercise 1.**

The code from the in-class handout worked well, however, all it did was print the shortest number of miles from and back to Reno. While the answer was useful it did not tell me which cities were visited. Originally, I just put down numbers and ran through all the iterations, but wanted it to look nicer, so I added an additional function, printCity(int).

Route 1: RNO SFO SLC SEA LVS 3358 Miles

Route 2: RNO SFO SLC LVS SEA 3204 Miles

Route 3: RNO SFO SEA SLC LVS 2726 Miles

Route 4: RNO SFO SEA LVS SLC 3090 Miles

Route 5: RNO SFO LVS SLC SEA 2752 Miles

Route 6: RNO SFO LVS SEA SLC 3270 Miles

Route 7: RNO SLC SFO SEA LVS 3629 Miles

Route 8: RNO SLC SFO LVS SEA 3655 Miles

Route 9: RNO SLC SEA SFO LVS 3174 Miles

Route 10: RNO SLC SEA LVS SFO 3270 Miles

Route 11: RNO SLC LVS SFO SEA 3020 Miles

Route 12: RNO SLC LVS SEA SFO 3090 Miles

Route 13: RNO SEA SFO SLC LVS 3108 Miles

Route 14: RNO SEA SFO LVS SLC 3020 Miles

Route 15: RNO SEA SLC SFO LVS 3291 Miles

Route 16: RNO SEA SLC LVS SFO 2752 Miles

Route 17: RNO SEA LVS SFO SLC 3652 Miles

Route 18: RNO SEA LVS SLC SFO 3207 Miles

Route 19: RNO LVS SFO SLC SEA 3288 Miles

Route 20: RNO LVS SFO SEA SLC 3174 Miles

Route 21: RNO LVS SLC SFO SEA 3111 Miles

Route 22: RNO LVS SLC SEA SFO 2726 Miles

Route 23: RNO LVS SEA SFO SLC 3626 Miles

Route 24: RNO LVS SEA SLC SFO 3361 Miles

2726 Miles, Route 3

No major issues occurred with this project. For reference, I am including the matrix representation and a visual of the graph on the next page.

Figure 2: Removal of 20

Figure 1: Finished tree

{0, 218, 518, 704, 439}, //Reno

{218, 0, 736, 808, 569}, //San Francisco

{518, 739, 0, 840, 421}, //Salt Lake City

{704, 808, 840, 0, 1125}, //Seattle

{439, 569, 421, 1125, 0} //Las Vegas

