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.

```
{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
```