

4. Bill is planning a U.S. tour for the Bolshoi Ballet. He has made a list of cities where the Bolshoi will perform. His plan is to always proceed to the nearest city that has not been visited yet. The tour will begin in the “remotest” city; Bill defines the “remotest” city as the one for which the sum of distances to all other cities is the largest.

Bill uses a distance chart to plan the trip. It is a square table with the cities listed horizontally and vertically in the same order; the intersection of the i -th row and j -th column shows the distance between the i -th and j -th cities. The table has zero values on the diagonal and is symmetrical with respect to the diagonal. For example:

	Atlanta	Boston	Cleveland	Dallas	Washington
Atlanta	0	936	550	719	540
Boston	936	0	554	1547	396
Cleveland	550	554	0	1018	309
Dallas	719	1547	1018	0	1181
Washington	540	396	309	1181	0

In this example, Dallas is the remotest city, because for Dallas the sum of the distances to the other cities — 4465 miles — is greater than for any other city. So the tour would begin in Dallas and then proceed to Atlanta, then Washington, then Cleveland, then Boston.

The distance chart is represented by the class `DistanceChart`, partially defined below.