**Question 2**

1. (i) Use the *mds()* function – in the *smacof* package – to perform metric multidimensional scaling. Locate the cities in t=2 dimensions, starting with a classical scaling solution as the initial configuration.

(ii) Which of the 11 cities has the poorest fit? Explain your answer.

(iii) Plot the 2D multidimensional scaling configuration and compare this the locations of the cities on a map from the atlas.

1. Repeat the analysis in part (a) using a random starting solution. How does the different initial configuration change the location of the cities in the 2D configuration?