Assignment 3 Rendering state sequences

1. Load the `biofam` data set that comes with the TraMineR library (look at the online help to get more information)

2. Create a weighted state sequence object named `biofam.seq` with variables `a15` to `a30`, using the following state names and labels

State	*Name*	*Label*
0	P	Parent
1	L	Left
2	M	Married
3	LM	Left/Married
4	C	Child
5	LC	Left/Child
6	LMC	Left/Married/Child
7	D	Divorced

   and the weights respecting the sample size.

3. Create a full sequence index plot sorted from the end for each class of the `cohort` variable created in assignment 2.

4. Print the frequencies of the first 20 sequences.

5. Create a sequence frequency plot of the 20 most frequent patterns grouped by values of the `cohort` variable and save it as a 'jpeg' file.

6. Compute the transition rate matrix for the biofam data set

7. What is the transition rate between states 'Left/Married' and 'Left/Married/Child'?

8. Display the sequence of transversal state distributions by cohort.

9. Within each cohort, at what age is the diversity of the transversal state distribution at its highest?

10. Display side by side in a same plot area the mean times spent in each of the states and the sequence of modal states.