

Phylogenetic Trees: UPGMA

Building on our example from last time, the table below shows the number of pairwise differences between samples in $\mathcal{X} = \{A, B, C, D, E\}$. We call this function δ a *dissimilarity map* since:

1. $\delta(x, x) = 0$
2. $\delta(x, y) = \delta(y, x)$

δ	A	B	C	D	E
A	0	1	3	6	6
B		0	2	5	5
C			0	5	5
D				0	2
E					0

A B C D E

Use the tables below to run UPGMA, gradually building up the tree (use the space above) as you go.

Δ	AB	C	D	E
AB				
C				
D				
E				

Δ	

Δ	