

Build the WPGMA tree for the following matrix of distances between sequences.

	A	B	C	D	E	F	G
A	-	0.2	0.8	0.2	0.5	0.6	0.1
B		-	0.6	0.25	0.45	0.5	0.05
C			-	0.75	0.65	0.4	0.55
D				-	0.4	0.7	0.3
E					-	0.4	0.5
F						-	0.55
G							-

Step1:

	A	B+G	C	D	E	F
A	-	0.15	0.8	0.2	0.5	0.6
B+G		-	0.575	0.275	0.475	0.525
C			-	0.75	0.65	0.4
D				-	0.4	0.7
E					-	0.4
F						-

Step2:

	A+(B+G)	C	D	E	F
A+(B+G)	-	0.6875	0.2375	0.4875	0.5625
C		-	0.75	0.65	0.4
D			-	0.4	0.7
E				-	0.4
F					-

Step3:

	(A+(B+G))+D	C	E	F
(A+(B+G))+D	-	0.71875	0.44375	0.63125
C		-	0.65	0.4
E			-	0.4
F				-

Step 4:

	$(A + (B + G)) + D$	C+F	E
$(A + (B + G)) + D$	–	0.675	0.44375
C+F		–	0.525
E			–

Step 5:

	$((A + (B + G)) + D) + E$	C+F
$((A + (B + G)) + D) + E$	–	0.6
C+F		–

WPGMA tree:

