*D(C\_1 \cup C\_2, Q) = α\_1 \* D(C\_1, Q) + α\_2 \* D(C\_2, Q) + β \* D(C\_1,C\_2) + γ \* |D(C\_1, Q) - D(C\_2, Q)|,*

D(i + j, k) = a(i)d(i, k) + a(j)d(j, k) + bd(i, j) + c|d(i, k) – d(j, k)|

For centroid distance the constants are:

A(i) = |i| / |i| + |j|

B = - (|i| \* |j| / (|i| + |j|)^2)

C = 0

For Ward’s method, the constants are:

Alpha(l) = |l| + |k| / |i| + |j| + |k|

Beta = -|k| / |i| + |j| + |k|

Gamma = 0

The argument in Alpha(l) stands for i or j as appropriate,