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26 February 2024

```
x1 = <1, 2>
x2 = <4, 4>
x3 = <2, 5>
x4 = <2, 2>
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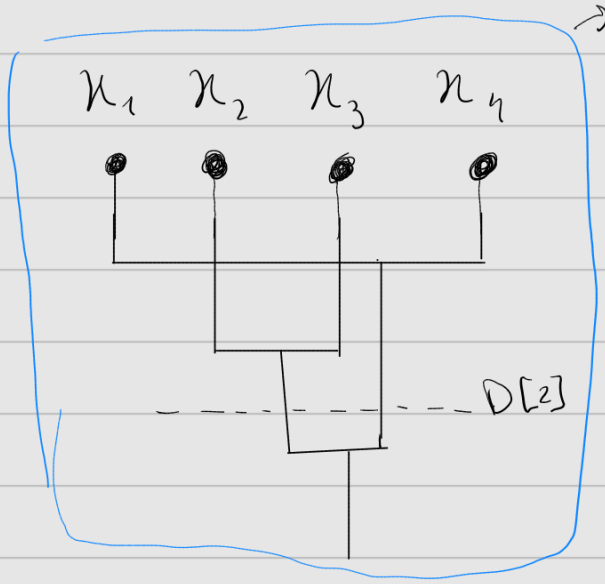
0	3.6	3.1	1
3.6	0	2.2	2.8
3.1	2.2	0	3
1	2.8	3	0

Given the feature vectors and the distance matrix above, compute the clustering dendrogram using agglomerative clustering with the complete linkage rule. Compute the Mojo distance of D[2] from:

`{x1, x2} {x3, x4}`

as well as precision and recall.

→ rotate 180° for standard representation



$\rightarrow \{x_1\}, \{x_2\}, \{x_3\}, \{x_4\}$
$\rightarrow \{x_1, x_4\}, \{x_2\}, \{x_3\}$
$\rightarrow \{x_1, x_4\}, \{x_2, x_3\}$
$\rightarrow \{x_1, x_2, x_3, x_4\}$

$$D[2] = \{\{x_1, x_4\}, \{x_2, x_3\}\} = A$$

$$B = \{\{x_1, x_2\}, \{x_3, x_4\}\}$$

$mno(A,B) = 2$
$mno(B,A) = 2$
$\Rightarrow Mojo(A,B) = 2$

$intrapairs(A) = A$
$intrapairs(B) = B$
$|A \cap B| = 0$

$$p = \frac{|intrapairs(A) \cap intrapairs(B)|}{|intrapairs(A)|} = 0$$

$$r = \frac{|intrapairs(A) \cap intrapairs(B)|}{intrapairs(B)} = 0$$

precision = 0
recall = 0