



#### An Animated and Narrated Glossary of Terms used in Linguistics presents







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## Basic idea

- A tree is a mathematical object, more specifically, it is a topological object.
- A tree is made up of nodes (entities) and arcs/branches (relations), and usually looks like this:





# Nodes and Branches

- A node is the ending point of a branch, and is often where two or more branches meet.
- A branch is any line that connects two nodes.









#### Domination









## Roots and terminals





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#### Constituency

• Constituency (grouping) can be indicated using domination.







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## Notational variants









# Trees and graphs

- In trees, nodes cannot be linked to form a cycle.
- Also, branches are not allowed to cross.
- Hence the following representations are not trees.









#### Trees

- Trees are good for expressing various kinds of relationships, especially those that involve constituency and hierarchy.
- They are used in syntax, phonology, semantics, genealogy of languages and many other linguistic domains.
- Trees are also widely used in other areas outside of linguistics.

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### Some trees in Linguistics







#### The End

Wee, Lian-Hee and Winnie H.Y. Cheung (2009) An animated and narrated glossary of terms used in Linguistics. Hong Kong Baptist University.