
LECTURE 5

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1 Tree Basics

A tree is a graph without any cycles. A tree is a connected graph with n vertices and $n-1$ edges.

1.1 Graphs edges proposition

a Tree with n vertices has at most $n-1$ edges. we can prove this with simple induction (will not get into the proof)

Definition 1.1. Leaf: vertex of degree 1 in a tree

Argue that what remains is still a tree.