

# Spanning Tree

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- ▶ A **spanning tree**, which spans the graph **G**, is a tree that connects to each vertex of the graph **G**.
- ▶ The spanning tree has all the same properties of other trees, i.e simple graph with no cycles and no loops.
- ▶ A tree that contains only vertices of degree one or two is called a **path graph**.  
If two path graphs contain the same number of vertices, then they are **isomorphic**.

- ▶ Find ALL non-isomorphic spanning trees of the graph **G**.