



## K-Trees

### 1 Why

They are an example of a chordal graph. They generalize trees.

### 2 Definition

A  $k$ -tree is an undirected graph with at least  $k$  vertices. The only  $k$ -tree with  $k$  vertices is the complete graph.

### 3 Chordality

**Proposition 1.** *All  $k$ -trees are chordal.*

*Proof.* Induction on  $k$ -tree with  $k$  vertices.

□