

### ORDERED UNDIRECTED GRAPHS

# Why

TODO Need for perfect elimination orderings.

#### definition

An *ordering* of an undirected graph is a numbering of its vertices. An *ordered undirected graph* is a triple: the first two objects as an ordered pair are an undirected graph and the third object is a numbering of this graphs vertices.

### **Notation**

Let G = (V, E) be an undirected graph with n = |V|. Let  $\sigma : \{1, 2, ..., n\} \to V$  be a numbering of V. We denote the ordered graph consisting of G and  $\sigma$  as  $G_{\sigma} = (V, E, \sigma)$ .

## **Array Visualization**

We visualize ordered graphs as triangular arrays by

