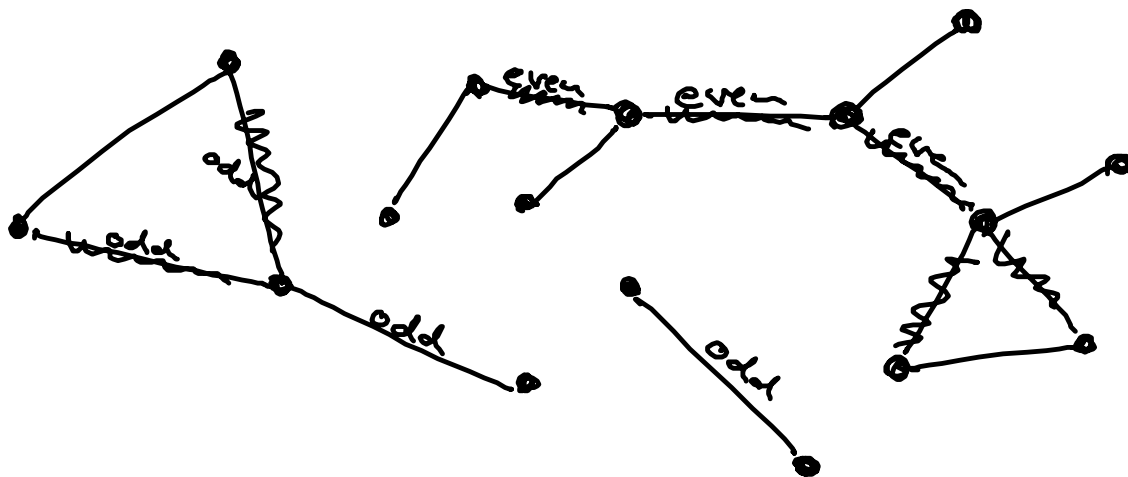
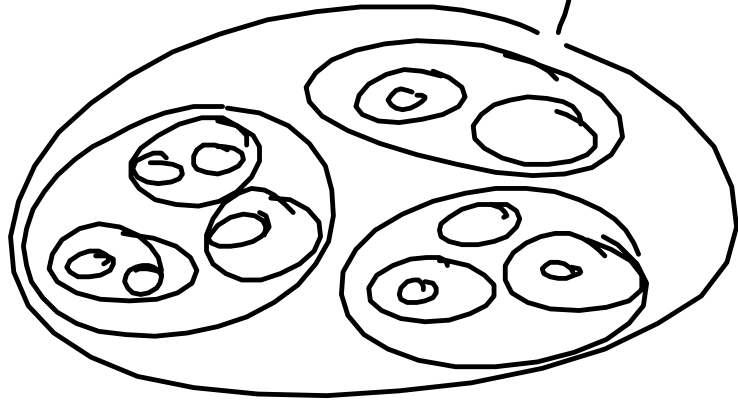


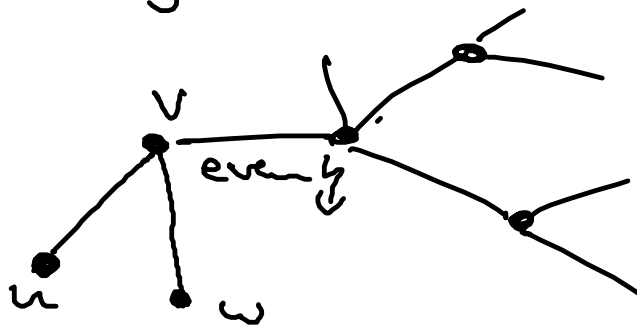
nested family



Proof of Lemma 13.31:

- 1) Delete all even edges.
- 2) Consider one of the remaining trees  $T$  and the tree  $T^*$  resulting from deleting all leaves of  $T$ .

Consider a leaf  $v$  of  $T^*$ . There was a leaf  $u$  of  $T$  adjacent to  $v$ .



There must have been another leaf  $w$  of  $T$  adjacent to  $v$  since there are no even edges.

$\Rightarrow$  Replace  $\{u, v\}$  and  $\{w, v\}$  with  $\{u, w\}$ .

Iterate this process.  $\square$