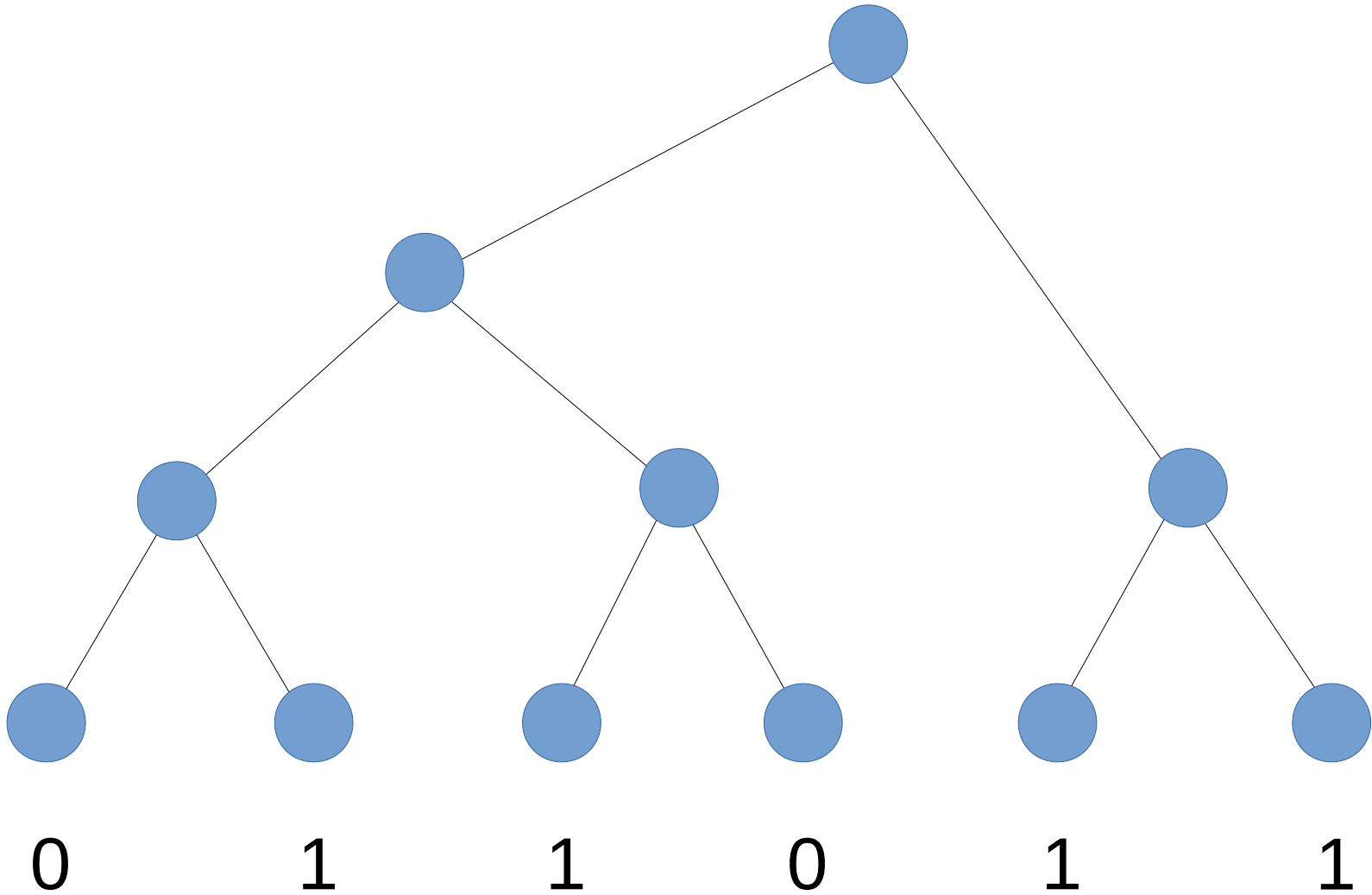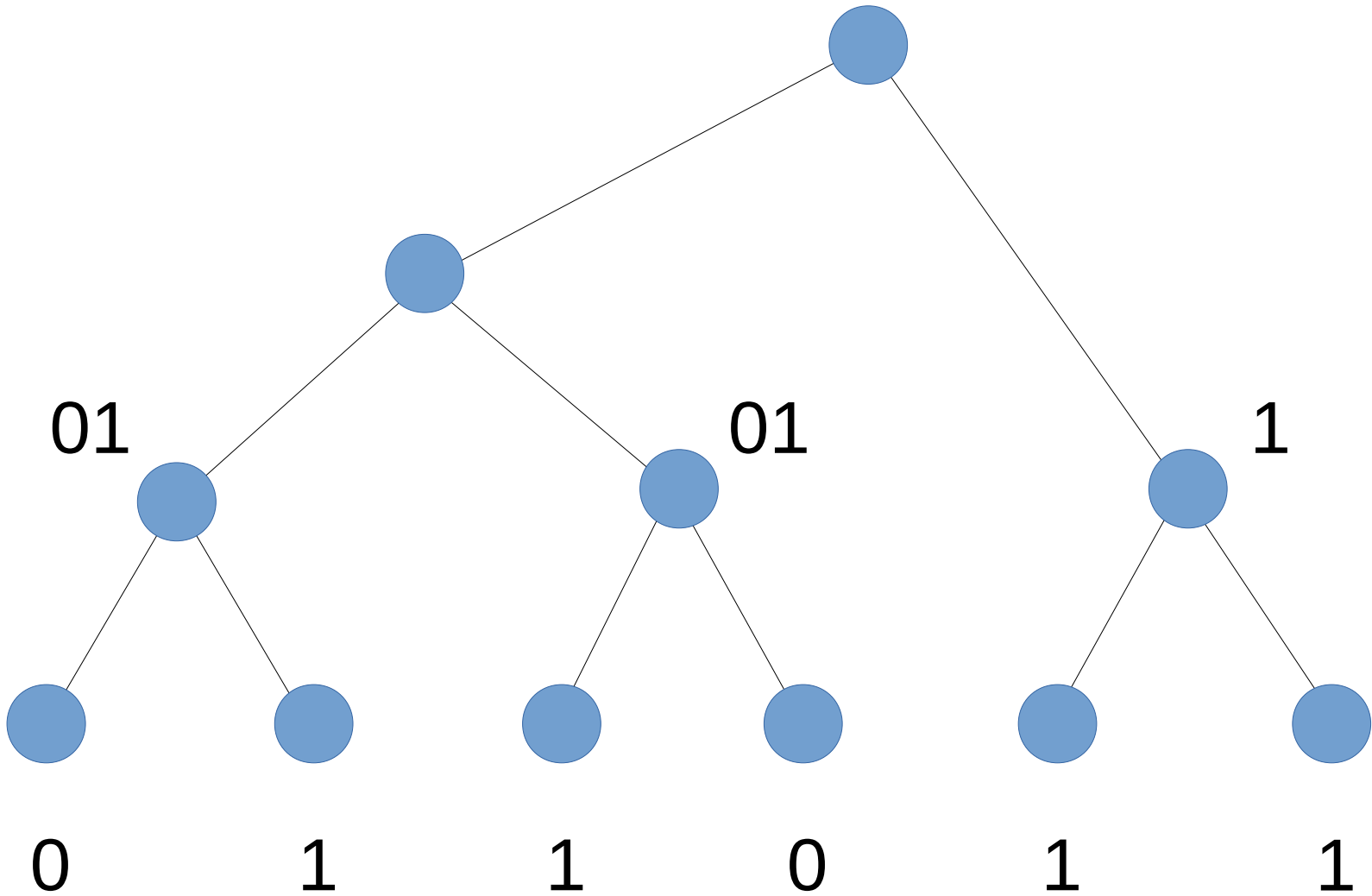# SCJ: Small Phylogeny

- Small phylogeny is polynomial under SCJ
- Treat each adjacency as binary character
- Use Fitch's algorithm for each adjacency
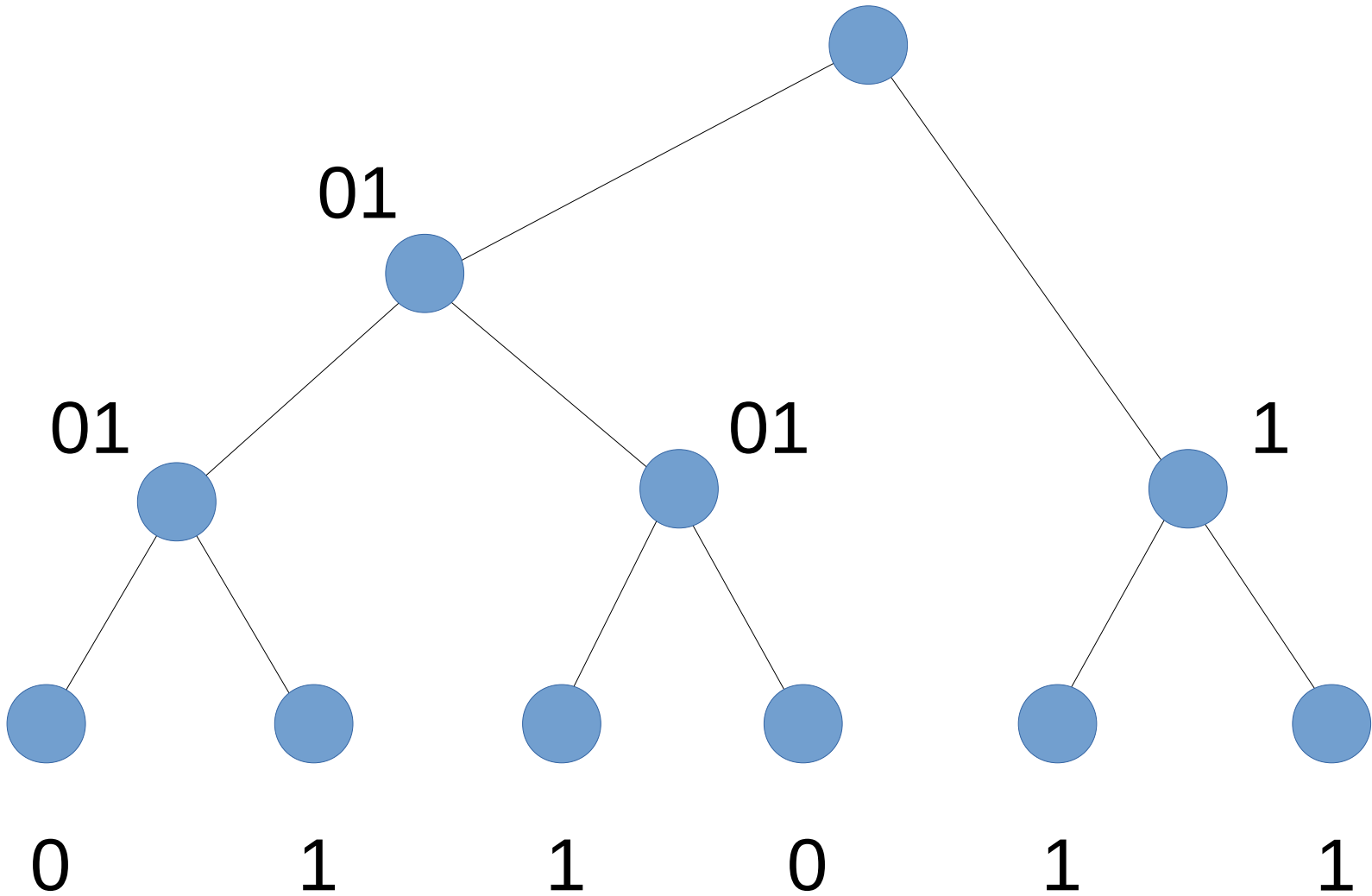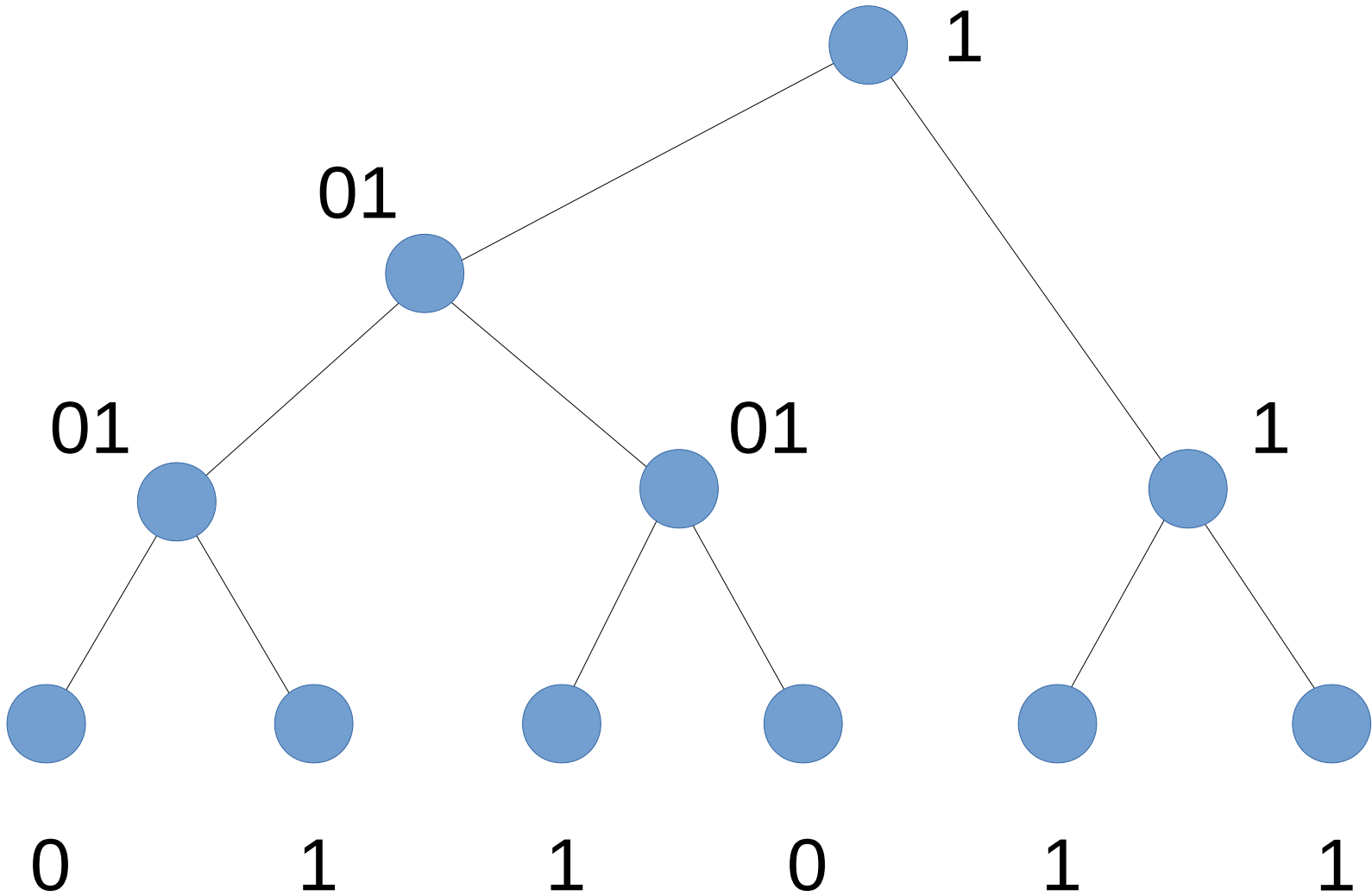- In the root, prefer 0

Fitch's algorithm

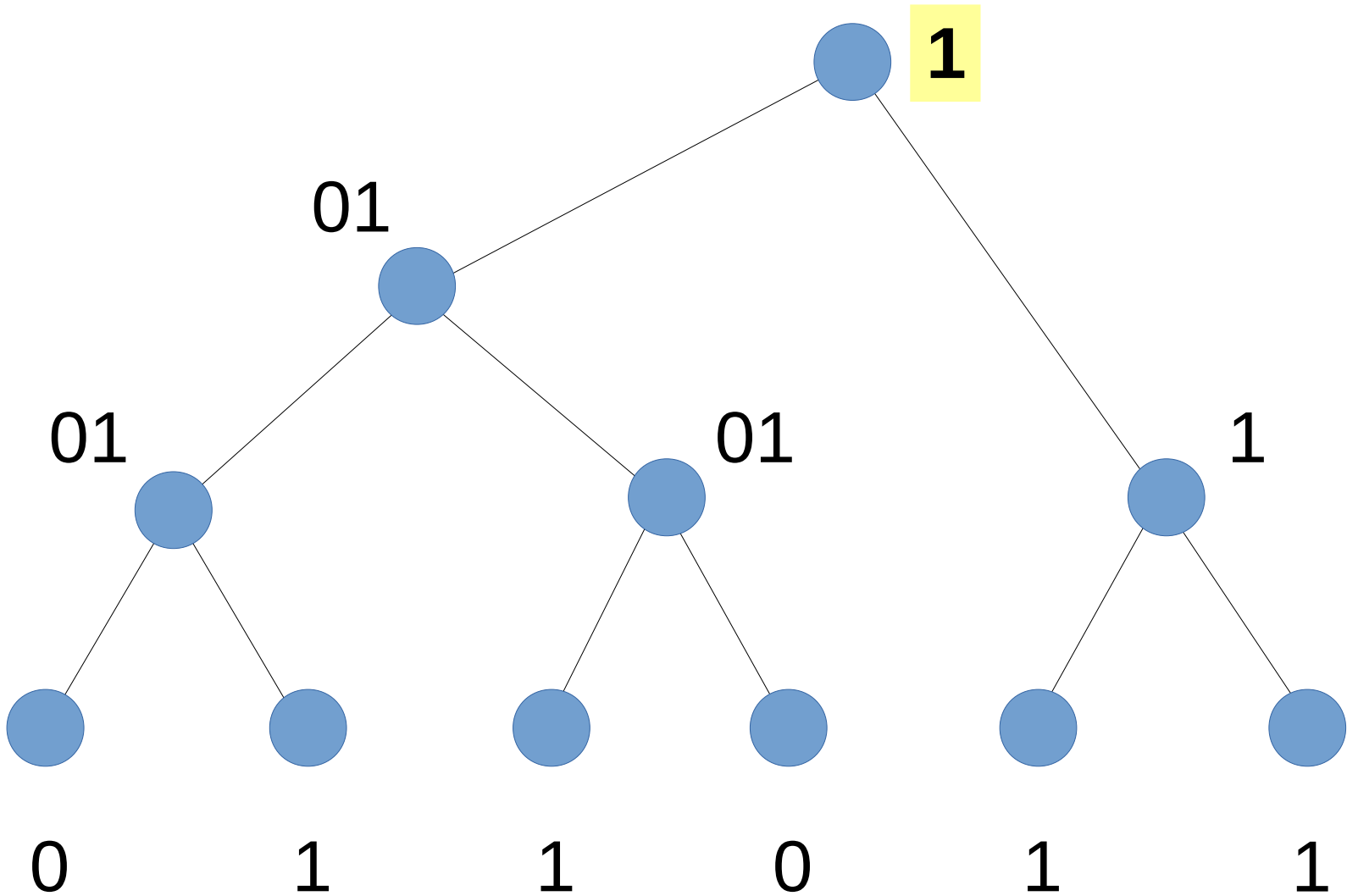0   1   1   0   1   1

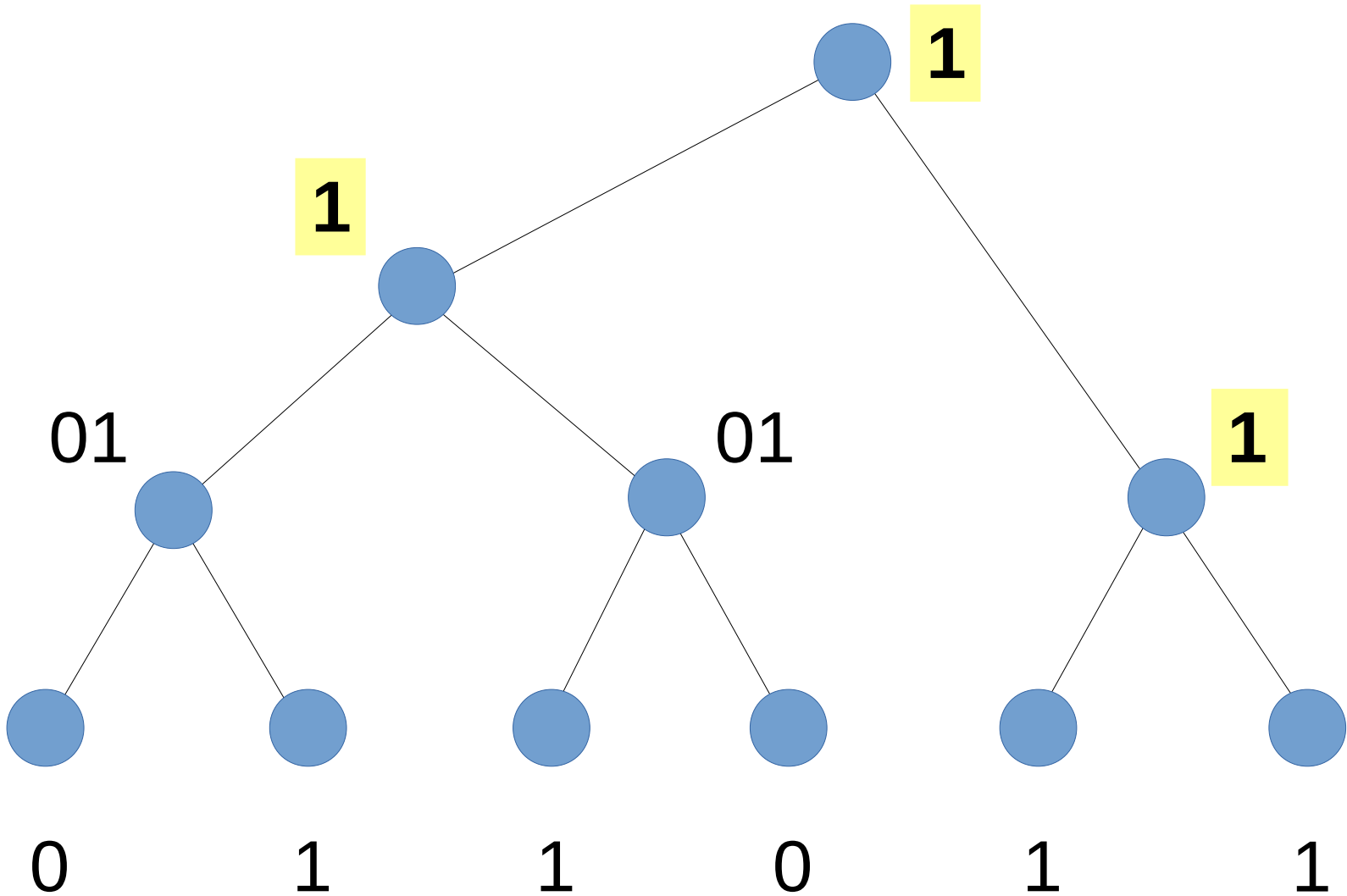# Fitch's algorithm

Fitch's algorithm
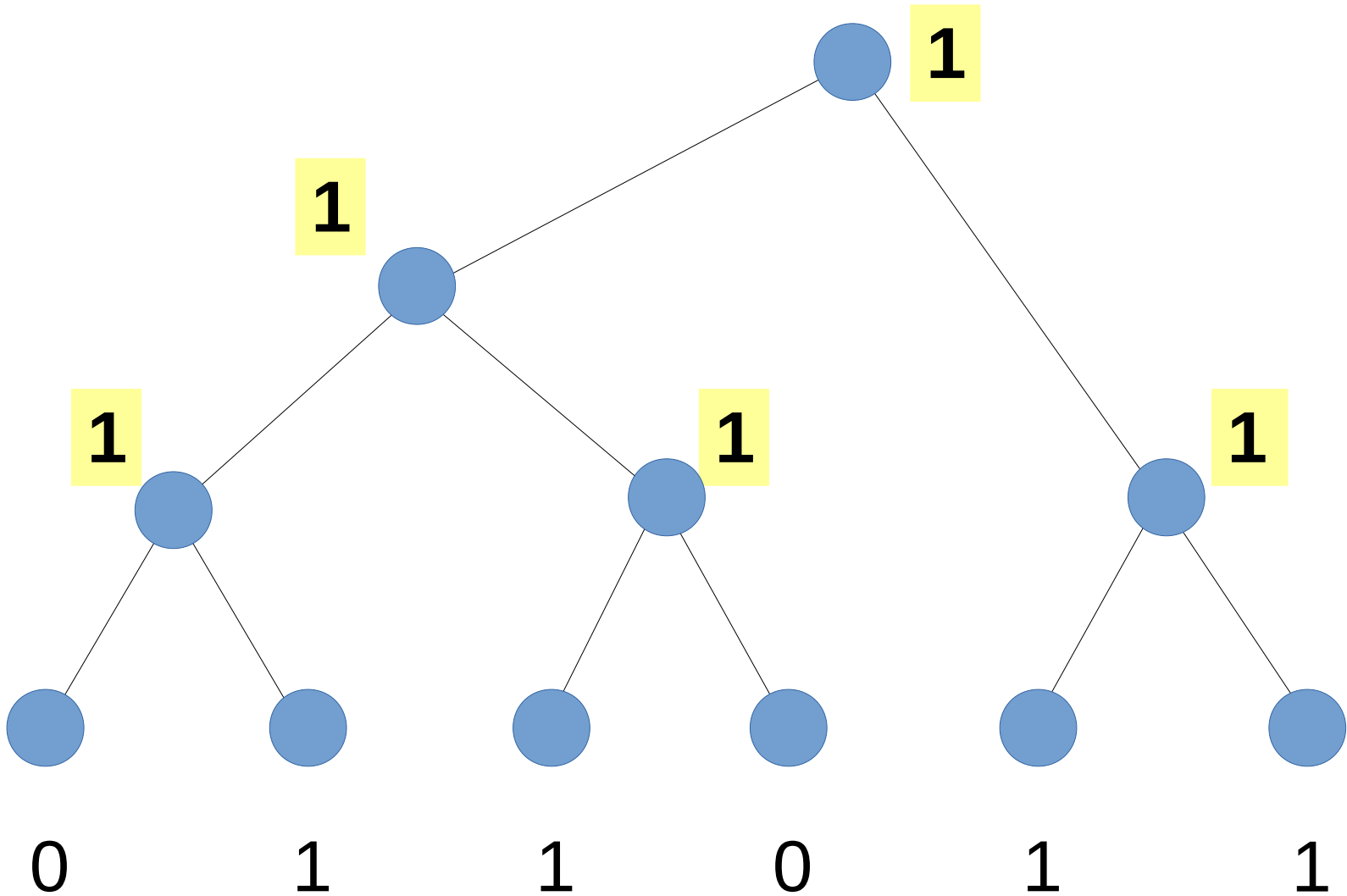
Fitch's algorithm

Fitch's algorithm: going down

Fitch's algorithm: going down

Fitch's algorithm: going down

SCJ: Big Phylogeny

- Big phylogeny is NP-hard under SCJ
- Steiner tree problem can be reduced to it