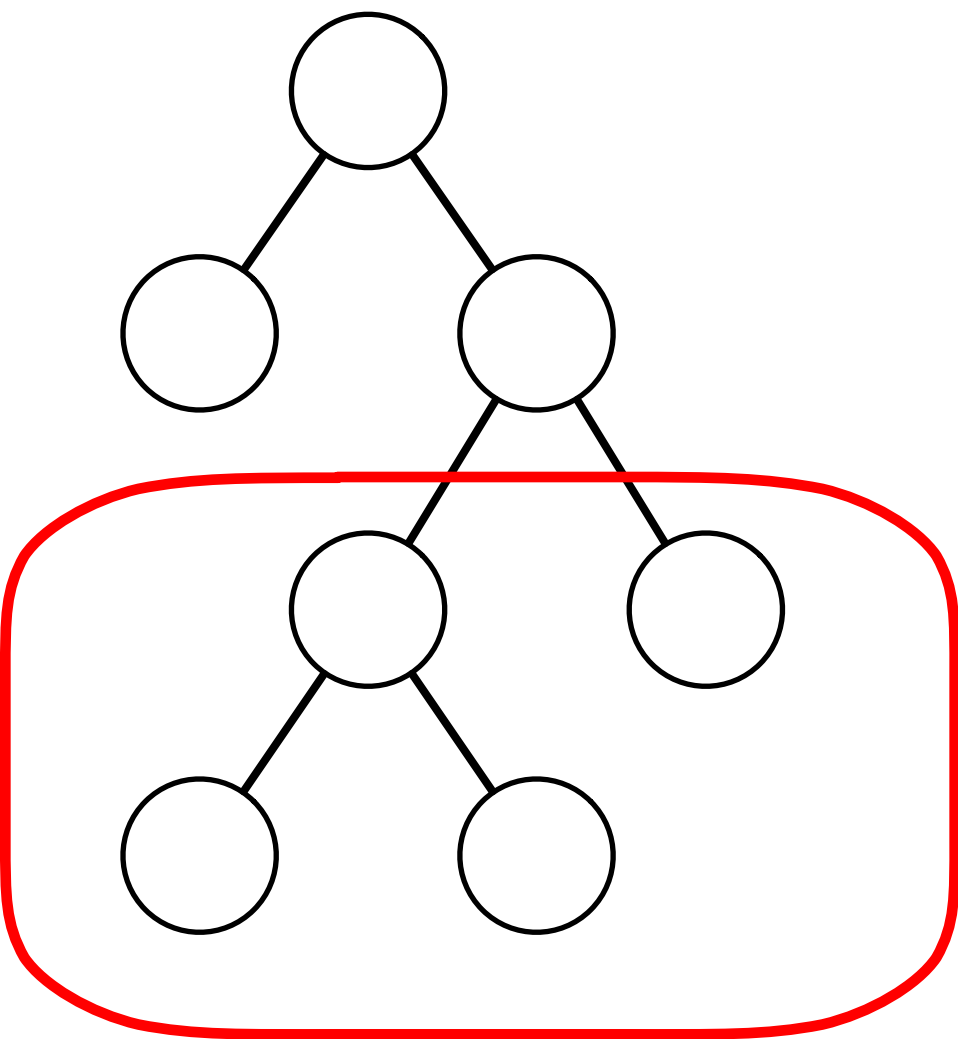**A**

Large guide tree

Smaller subproblem

B

Reconstructed ancestor

Outgroup genome

Ingroup genome

Ingroup genome