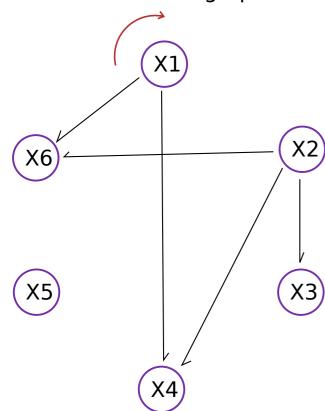
Relation Digraph



Valid HGTs

- 1. (X1, X4) 2. (X2, X4) 3. (X2, X3) 4. (X1, X6)* 5. (X2, X6)*
- * before-speciation relations

Symmetric Relations

$$(X1, X4) \sim (X1, X5)$$

 $(X2, X4) \sim (X2, X5)$
 $(X2, X3) \sim (X3, X2)$
 $(X2, X4) \sim (X3, X4)$
 $(X2, X5) \sim (X3, X5)$
 $(X2, X6) \sim (X3, X6)$
 $(X4, X1) \sim (X2, X6)$
 $(X4, X2) \sim (X2, X4)$
 $(X4, X3) \sim (X2, X4)$
 $(X4, X5) \sim (X2, X3)$
 $(X5, X1) \sim (X2, X4)$
 $(X4, X3) \sim (X2, X4)$
 $(X4, X3) \sim (X2, X4)$

 $(X4, X5) \sim (X2, X3)$