Relation Digraph

X1 X2

X4 X3

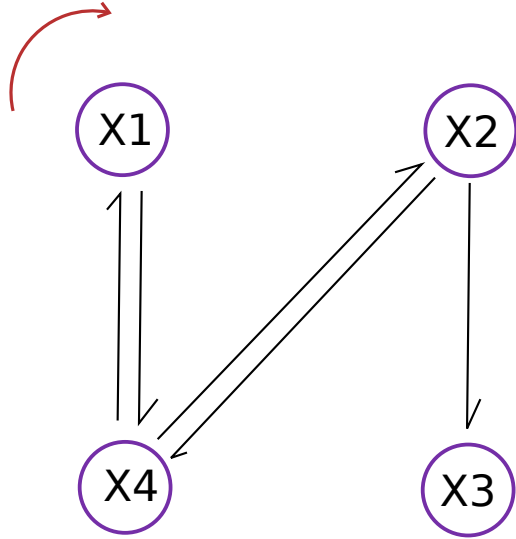## Valid HGTs

1. (X1, X4)
2. (X2, X3)
3. (X2, X4)
4. (X4, X2)
5. (X4, X1)*

* before-speciation relations

Symmetric Relations

(X2, X3) ~ (X3, X2)
(X2, X4) ~ (X3, X4)
(X4, X2) ~ (X4, X3)