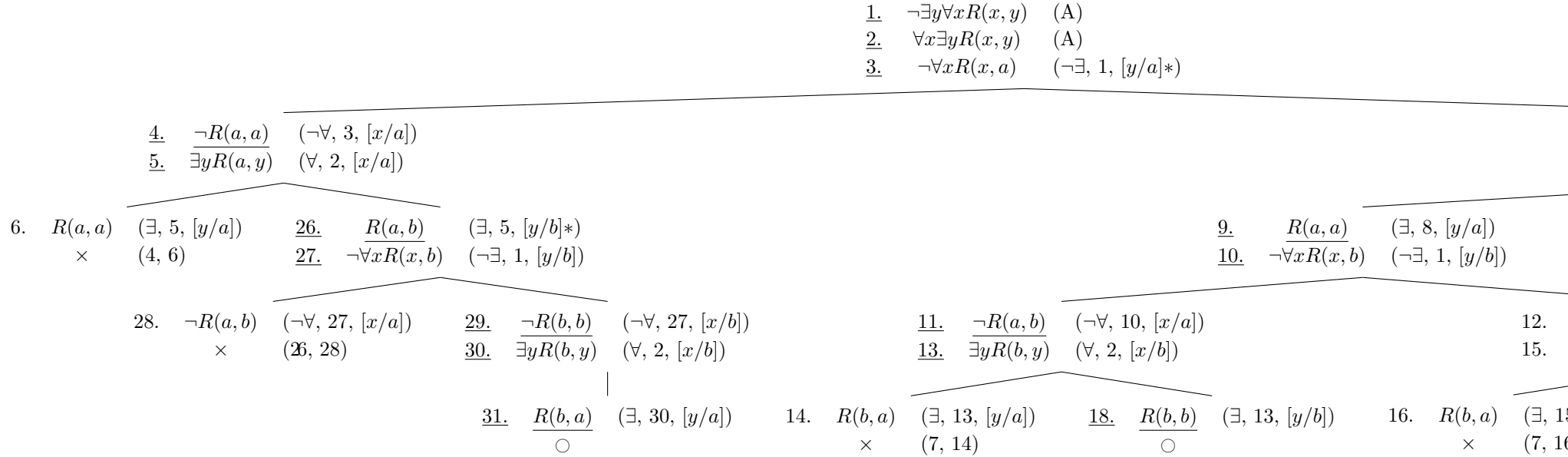


You are using countermodel generation for classical predicate logic.

Tableau for

$\forall x \exists y R(x, y)$

$\not\models \exists y \forall x R(x, y) :$



The tableau is open:

The inference is refutable.

Countermodels:

Structure  $\mathcal{S}_{31} = \langle \mathcal{D}, \mathcal{I} \rangle$  with

$\mathcal{D} = \{a, b\}$

$\mathcal{I} : R \mapsto \{ \langle a, b \rangle, \langle b, a \rangle \}$

Structure  $\mathcal{S}_{18} = \langle \mathcal{D}, \mathcal{I} \rangle$  with  
 $\mathcal{D} = \{a, b\}$   
 $\mathcal{I} : R \mapsto \{\langle a, a \rangle, \langle b, b \rangle\}$

This computation took 0.144 seconds.