```
==> )
_____________________________________ax
∀X.∀Y.P (X, Y) |- ∀X.∀Y.P (X, Y)
_____________________________________∀e
∀X.∀Y.P (X, Y) |- ∀Y.P (X, Y)
_____________________________________∀e
∀X.∀Y.P (X, Y) |- P (X, Y)
_____________________________________∀i
∀X.∀Y.P (X, Y) |- ∀X.P (X, Y)
_____________________________________∀i
∀X.∀Y.P (X, Y) |- ∀Y.∀X.P (X, Y)
_____________________________________->i
∀X.∀Y.P (X, Y ) => ∀Y.∀X.P (X, Y ).

<== )
_____________________________________ax
∀Y.∀X.P (X, Y) |- ∀Y.∀X.P (X, Y)
_____________________________________∀e
∀Y.∀X.P (X, Y) |- ∀X.P (X, Y)
_____________________________________∀e
∀Y.∀X.P (X, Y) |- P (X, Y)
_____________________________________∀i
∀Y.∀X.P (X, Y) |- ∀Y.P (X, Y)
_____________________________________∀i
∀Y.∀X.P (X, Y) |- ∀X.∀Y.P (X, Y)
_____________________________________->i
∀Y.∀X.P (X, Y) => ∀X.∀Y.P (X, Y)


                          _____________________________________ax
                          R, ∀Y.P(X, Y) |- ∀Y.P (X, Y)
                          _____________________________∀E
                          R, ∀Y.P(X, Y) |- P(X,Y)
_____________________ax    _____________________________∃i
R |- ∃X.∀Y.P(X, Y)    R, ∀Y.P(X, Y) |- ∃X.P(X, Y)
_____________________∃e
R |- ∃X.P(X, Y)
_____________________________________∀i
R = {∃X.∀Y.P(X, Y)} |- ∀Y.∃X.P(X, Y )
_____________________________________->i
∃X.∀Y.P(X, Y) => ∀Y.∃X.P(X, Y ).
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