```
inhabited_uniquely_vs_exists_unique  THM

⊢  ∀A:Type. (∃!∈A) ⟺ (∃!x:A. True)
| by Rewrite by
|    Thm*  (∃!∈A) ⟺ (∃x:A. ∀y:A. x = y)
|    {inhabited_uniquely_vs_exists}
|
⊢  ∀A:Type. (∃x:A. ∀y:A. x = y) ⟺ (∃!x:A. True)  by Auto
|
|\
| 1. A : Type
| 2. ∃x:A. ∀y:A. x = y
| ⊢  ∃!x:A. True  by SimilarTo: Hyp:-1
| |
| 2. x : A
| 3. ∀y:A. x = y
| ⊢  x is the A s.t. True  by Analyze THEN Rename-2: y
| |
| 4. y : A
| 5. True
| ⊢  y = x  by BackThru: Hyp:3
|
.\
. 1. A : Type
. 2. ∃!x:A. True
. ⊢  ∃x:A. ∀y:A. x = y  by SimilarTo: Hyp:-1
. |
. 2. x : A
. 3. x is the A s.t. True
. 4. y : A
. ⊢  x = y  by BackThru: Hyp:-2
END
```