

```

┆ ∀[T:Type]. ∀[A:T → ℙ]. {∀x:T. {A x} ⇔ ¬(∃x:T. (¬(A x)))}
|
BY Auto
|
1. T: Type
2. A: T → ℙ
┆ {∀x:T. {A x} ⇔ ¬(∃x:T. (¬(A x)))}
|
BY RepeatFor 4 ((D 0 THENA Auto))
| \
| 3. ∀x:T. {A x}
| ┆ {¬(∃x:T. (¬(A x)))}
| |
1 BY (ElimClassical THENA Auto)
| |
| ┆ ¬(∃x:T. (¬(A x)))
| |
1 BY (D 0 THENA Auto)
| |
| 4. ∃x:T. (¬(A x))
| ┆ False
| |
1 BY D 4
| |
| 4. x: T
| 5. ¬(A x)
| ┆ False
| |
1 BY (InstHyp [x] 3. THENA Auto)
| |
| 6. {A x}
| ┆ False
| |
1 BY D 6
| |
| 6. x@0: Unit
| 7. A x
| ┆ False
| |
1 BY D 5
| |
| 5. x@0: Unit
| 6. A x
| ┆ A x
| |
1 BY Hypothesis
| \
| 3. ¬(∃x:T. (¬(A x)))
| ┆ {∀x:T. {A x}}
|
BY (ElimClassical THENA Auto)
|
┆ ∀x:T. {A x}
|
BY (D 0 THENA Auto)
|

```

```

4. x: T
├ {A x}
|
BY (ClassicalContradiction THENA Auto)
|
5. ¬(A x)
├ {A x}
|
BY D 3
|
3. x: T
4. ¬(A x)
├ ∃x:T. (¬(A x))
|
BY (InstConcl [x]). THENA Auto)
|
├ ¬(A x)
|
BY Hypothesis

```