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⊢ ∀[A,B:ℙ]. {A ∨ B ⇔ (¬A) ⇒ B}
|
BY (D 0 THENA Auto)
| \
| 1. A: ℙ
| ⊢ ∀[B:ℙ]. {A ∨ B ⇔ (¬A) ⇒ B}
| |
1 BY (D 0 THENA Auto)
| | \
| | 2. B: ℙ
| | ⊢ {A ∨ B ⇔ (¬A) ⇒ B}
| | |
1 2 BY RepeatFor 4 ((D 0 THENA Auto))
| | | \
| | | 3. A ∨ B
| | | ⊢ {(¬A) ⇒ B}
| | | |
1 2 3 BY RepeatFor 2 ((D 0 THENA Auto))
| | | |
| | | 4. ¬A
| | | ⊢ {B}
| | | |
1 2 3 BY D 3
| | | | \
| | | | 3. A
| | | | ⊢ {B}
| | | | |
1 2 3 4 BY D 4
| | | | |
| | | | ⊢ A
| | | | |
1 2 3 4 BY Hypothesis
| | | | \
| | | | 3. B
| | | | ⊢ {B}
| | | | |
1 2 3 BY ElimClassical
| | | | |
| | | | ⊢ B
| | | | |
1 2 3 BY Hypothesis
| | | | \
| | | 3. (¬A) ⇒ B
| | | ⊢ {A ∨ B}
| | | |
1 2 BY (ClassicalContradiction THENA Auto)
| | | |
| | | 4. ¬(A ∨ B)
| | | ⊢ {A ∨ B}
| | | |
1 2 BY (ElimClassical THENA Auto)
| | | |
| | | ⊢ A ∨ B
| | | |
1 2 BY D 3
| | | | \

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| | | 3.  $\neg(A \vee B)$ 
| | |  $\vdash \neg A$ 
| | |
1 2 3 BY (D 0 THENA Auto)
| | |
| | | 4. A
| | |  $\vdash \text{False}$ 
| | |
1 2 3 BY D 3
| | |
| | | 3. A
| | |  $\vdash A \vee B$ 
| | |
1 2 3 BY (OrLeft THENA Auto)
| | |
| | |  $\vdash A$ 
| | |
1 2 3 BY Hypothesis
| | \
| | 3.  $\neg(A \vee B)$ 
| | 4. B
| |  $\vdash A \vee B$ 
| | |
1 2 BY (OrRight THENA Auto)
| | |
| |  $\vdash B$ 
| | |
1 2 BY Hypothesis
| \
| 2. B:  $\mathbb{P}$ 
| 3.  $\{x:\text{Unit} \mid A \vee B \iff (\neg A) \Rightarrow B\}$ 
|  $\vdash Ax \in \{x:\text{Unit} \mid A \vee B \iff (\neg A) \Rightarrow B\}$ 
| |
1 BY Auto
\
1. A:  $\mathbb{P}$ 
2. B:  $\mathbb{P}$ 
3.  $\{x:\text{Unit} \mid A \vee B \iff (\neg A) \Rightarrow B\}$ 
 $\vdash Ax \in \{x:\text{Unit} \mid A \vee B \iff (\neg A) \Rightarrow B\}$ 
|
BY Auto

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