

```

⊢ ∀[A,B:ℙ]. {A ∧ (B ∨ (¬B)) ⇔ A}
|
BY (D 0 THENA Auto)
| \
| 1. A: ℙ
| ⊢ ∀[B:ℙ]. {A ∧ (B ∨ (¬B)) ⇔ A}
| |
1 BY (D 0 THENA Auto)
| | \
| | 2. B: ℙ
| | ⊢ {A ∧ (B ∨ (¬B)) ⇔ A}
| | |
1 2 BY RepeatFor 4 ((D 0 THENA Auto))
| | | \
| | | 3. A ∧ (B ∨ (¬B))
| | | ⊢ {A}
| | | |
1 2 3 BY D 3
| | | |
| | | 3. A
| | | 4. B ∨ (¬B)
| | | ⊢ {A}
| | | |
1 2 3 BY ElimClassical
| | | |
| | | ⊢ A
| | | |
1 2 3 BY Hypothesis
| | \
| | 3. A
| | ⊢ {A ∧ (B ∨ (¬B))}
| | |
1 2 BY (ClassicalContradiction THENA Auto)
| | |
| | 4. ¬(A ∧ (B ∨ (¬B)))
| | ⊢ {A ∧ (B ∨ (¬B))}
| | |
1 2 BY (ElimClassical THENA Auto)
| | |
| | ⊢ A ∧ (B ∨ (¬B))
| | |
1 2 BY D 0
| | | \
| | | | ⊢ A
| | | | |
1 2 3 BY Hypothesis
| | \
| | ⊢ B ∨ (¬B)
| | |
1 2 BY (OrRight THENA Auto)
| | |
| | ⊢ ¬B
| | |
1 2 BY (D 0 THENA Auto)
| | |
| | 5. B

```

```

| |      ⊢ False
| |      |
1 2     BY D 4
| |      |
| |      4. B
| |      ⊢ A ∧ (B ∨ (¬B))
| |      |
1 2     BY D 0
| |      | \
| |      | ⊢ A
| |      | |
1 2     3 BY Hypothesis
| |      | \
| |      | ⊢ B ∨ (¬B)
| |      | |
1 2     BY (OrLeft THENA Auto)
| |      | |
| |      | ⊢ B
| |      | |
1 2     BY Hypothesis
| |      | \
| |      | 2. B: ℙ
| |      | 3. {x:Unit | A ∧ (B ∨ (¬B)) ⇔ A}
| |      | ⊢ Ax ∈ {x:Unit | A ∧ (B ∨ (¬B)) ⇔ A}
| |      | |
1     BY Auto
| |      | \
| |      | 1. A: ℙ
| |      | 2. B: ℙ
| |      | 3. {x:Unit | A ∧ (B ∨ (¬B)) ⇔ A}
| |      | ⊢ Ax ∈ {x:Unit | A ∧ (B ∨ (¬B)) ⇔ A}
| |      | |
| |      | BY Auto

```