

```

⊢ ∀[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 (ElimClassical THENA Auto)
| | | |
| | | | ⊢ ¬(A ∧ (¬B))
| | | |
1 2 3 BY (D 0 THENA Auto)
| | | |
| | | | 4. A ∧ (¬B)
| | | | ⊢ False
| | | |
1 2 3 BY D 4
| | | |
| | | | 4. A
| | | | 5. ¬B
| | | | ⊢ False
| | | |
1 2 3 BY D 3
| | | | \
| | | | 3. A
| | | | 4. ¬B
| | | | ⊢ A
| | | |
1 2 3 4 BY Hypothesis
| | | | \
| | | | 3. A
| | | | 4. ¬B
| | | | 5. B
| | | | ⊢ False
| | | |
1 2 3 BY D 4
| | | |
| | | | 4. B
| | | | ⊢ B
| | | |
1 2 3 BY Hypothesis
| | | \
| | | 3. ¬(A ∧ (¬B))
| | | ⊢ {A ⇒ B}
| | |
1 2 BY (RepeatFor 2 (D 0) THENA Auto)

```

```

| | |
| | 4. A
| | ⊢ {B}
| | |
1 2 BY (ClassicalContradiction THENA Auto)
| | |
| | 5. ¬B
| | ⊢ {B}
| | |
1 2 BY D 3
| | |
| | 3. A
| | 4. ¬B
| | ⊢ A ∧ (¬B)
| | |
1 2 BY D 0
| | | \
| | | ⊢ A
| | | |
1 2 3 BY Hypothesis
| | | \
| | | ⊢ ¬B
| | | |
1 2 BY Hypothesis
| | \
| | 2. B: ℙ
| | 3. {x:Unit | A ⇒ B ⇔ ¬(A ∧ (¬B))}
| | ⊢ Ax ∈ {x:Unit | A ⇒ B ⇔ ¬(A ∧ (¬B))}
| | |
1 BY Auto
| \
| 1. A: ℙ
| 2. B: ℙ
| 3. {x:Unit | A ⇒ B ⇔ ¬(A ∧ (¬B))}
| ⊢ Ax ∈ {x:Unit | A ⇒ B ⇔ ¬(A ∧ (¬B))}
| |
BY Auto

```