```
bnot_ball  THM

⊢  ∀T:S, P:(T→𝔹). ¬₂(∀ᵦx:T. P(x)) = (∃ᵦx:T. ¬₂P(x))
| by Id THEN StrongAuto THEN Simpsetp [`bequal`] THEN StrongAuto
|
|\
| 1. T : S
| 2. P : T→𝔹
| 3. ¬(∀x:T. P(x))
| ⊢  ∃x:T. ¬P(x)  by AddEMHyp
| |
| 1. T : S
| 2. P : T→𝔹
| 3. ¬(∀x:T. P(x))
| 4. XM
| ⊢  ∃x:T. ¬P(x)  by Decide (∃x:T. ¬P(x)) THEN StrongAuto
| |
| 1. T : S
| 2. P : T→𝔹
| 3. ¬(∀x:T. P(x))
| 4. XM
| 5. ¬(∃x:T. ¬P(x))
| ⊢  ∃x:T. ¬P(x)  by Analyze 3 THEN StrongAuto
| |
| 1. T : S
| 2. P : T→𝔹
| 3. XM
| 4. ¬(∃x:T. ¬P(x))
| 5. x : T
| ⊢  P(x)  by Decide P(x) THEN StrongAuto
| |
| 1. T : S
| 2. P : T→𝔹
| 3. XM
| 4. ¬(∃x:T. ¬P(x))
| 5. x : T
| 6. ¬P(x)
| ⊢  P(x)
|   by Analyze 4 THEN StrongAuto THEN DTerm x 0 THEN StrongAuto
|
.\
. 1. T : S
. 2. P : T→𝔹
. 3. ∃x:T. ¬P(x)
. ⊢  ¬(∀x:T. P(x))  by Analyze 3 THEN StrongAuto
. |
. 1. T : S
. 2. P : T→𝔹
. 3. x : T
. 4. ¬P(x)
. ⊢  ¬(∀x:T. P(x))  by Analyze 0 THEN StrongAuto
. |
. 1. T : S
. 2. P : T→𝔹
. 3. x : T
```

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. 4. ¬P(x)
. 5. ∀x:T. P(x)
. ⊢  False  by DTerm x 5 THEN StrongAuto
END
```