

```

┆ ∀[T:Type]. ∀[P:T → ℙ]. ∀[C:ℙ]. (((∃x:T. (P x)) ∧ C) ⇒ (∃x:T. ((P x) ∧ C)))
|
BY RepeatFor 3 ((UD THENA Auto))
|
[1]. T: Type
[2]. P: T → ℙ
[3]. C: ℙ
┆ ((∃x:T. (P x)) ∧ C) ⇒ (∃x:T. ((P x) ∧ C))
|
BY (D 0 THENA Auto)
|
4. (∃x:T. (P x)) ∧ C
┆ ∃x:T. ((P x) ∧ C)
|
BY D 4
|
4. ∃x:T. (P x)
5. C
┆ ∃x:T. ((P x) ∧ C)
|
BY D 4
|
4. x: T
5. P x
6. C
┆ ∃x:T. ((P x) ∧ C)
|
BY (InstConcl [x]). THENA Auto)
|
┆ (P x) ∧ C
|
BY D 0
| \
| ┆ P x
| |
1 BY NthHyp 5
| \
| ┆ C
|
BY NthHyp 6

```

Extract:

```

λf.let g,c = f in
  let x,p = g in <x, p, c>

where f : (∃x:T. (P x)) ∧ C
      g : ∃x:T. (P x)
      c : C
      p : P x

```