

```

┆ ∀[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 0 THENA Auto)
|
5. x: T
┆ (P x) ∨ C
|
BY D 4
| \
| 4. ∀x:T. (P x)
| ┆ (P x) ∨ C
| |
1 BY (OrLeft THENA Auto)
| |
| ┆ P x
| |
1 BY (SimpleInstHyp 「x」 4· THENA Auto)
| |
| 6. P x
| ┆ P x
| |
1 BY NthHyp 6
| \
| 4. C
| ┆ (P x) ∨ C
|
BY (OrRight THENA Auto)
|
┆ C
|
BY NthHyp 4

```

Extract:

```

λf,x. case f of
  inl(g) => inl (g x)
| inr(c) => inr c

where f : (∀x:T. (P x)) ∨ C
      g : ∀x:T. (P x)
      c : C

```