```
nsub_is_finite  THM

⊢  ∀n:ℕ. Fin(ℕn)  by Analyze 0
|
1. n : ℕ
⊢  Fin(ℕn)  by Unfold ‘finite‘ 0
|
⊢  ∃n@0:ℕ, f:(ℕn@0→ℕn). Bij(ℕn@0; ℕn; f)  by Witness n
|
⊢  ∃f:(ℕn→ℕn). Bij(ℕn; ℕn; f)  by Witness Id
|
⊢  Bij(ℕn; ℕn; Id)  by Analyze 0
|
|\
| ⊢  Inj(ℕn; ℕn; Id)  by Unfold ‘inject‘ 0
| |
| ⊢  ∀a1,a2:ℕn. Id(a1) = Id(a2) ⇒ a1 = a2  by Reduce 0
| |
| ⊢  ∀a1,a2:ℕn. a1 = a2 ⇒ a1 = a2  by UnivCD
|
.\
. ⊢  Surj(ℕn; ℕn; Id)  by Unfold ‘surject‘ 0
. |
. ⊢  ∀b:ℕn. ∃a:ℕn. Id(a) = b  by Reduce 0
. |
. ⊢  ∀b:ℕn. ∃a:ℕn. a = b  by Analyze 0
. |
. 2. b : ℕn
. ⊢  ∃a:ℕn. a = b  by Witness b
END
```