```
sfa_doc_factbody_polytyping  THM

⊢  (λf,x. if x=₂0→ 1 else x·f(x-1) fi) ∈ (∩k:ℕ. (ℕk→ℕ)→ℕ(k+1)→ℕ)
| by 3 Times Analyze
|
1. k : ℕ
2. f : ℕk→ℕ
3. x : ℕ(k+1)
⊢  if x=₂0→ 1 else x·f(x-1) fi ∈ ℕ  by SplitOnConclITE
|
.....falsecase .....
4. ¬x = 0
⊢  x·f(x-1) ∈ ℕ
  by BackThru: Thm* ∀i,j:ℕ. i·j ∈ ℕ    {multiply_nat_wf}
END
```