```
sfa_doc_inlist_wf  THM

⊢  ∀A:Type, a:A, xs:A List. (a ∈list xs) ∈ Prop  by UnivCD
|
1. A : Type
2. a : A
3. xs : A List
⊢  (a ∈list xs) ∈ Prop  by ListInd Hyp:-1
|
|\
| ⊢  (a ∈list nil) ∈ Prop  by Compute ⌜a ∈list nil⌝ *⇒ False
|
.\
. 4. u : A
. 5. v : A List
. 6. (a ∈list v) ∈ Prop
. ⊢  (a ∈list u.v) ∈ Prop
. | by Compute ⌜a ∈list u.v⌝ *⇒ u = a ∈ A ∨ a ∈list v
. |
. ⊢  (u = a ∨ a ∈list v) ∈ Prop  by Analyze
. |
. |\
. | ⊢  (u = a) ∈ Prop  by Auto
. |
. .\
. . ⊢  (a ∈list v) ∈ Prop  by Hypothesis
END
```