```
formula_imp_right_sound  THM

⊢  ∀hyp,M,N:Formula List, q,r:Formula.
|  |= <q.hyp,r.(M @ N)>  ⇒ |= <hyp,M @ (q⌜⇒⌝r.N)>   by UnivCD
|
1. hyp : Formula List
2. M : Formula List
3. N : Formula List
4. q : Formula
5. r : Formula
6. |= <q.hyp,r.(M @ N)>
⊢  |= <hyp,M @ (q⌜⇒⌝r.N)>
| by UnfoldTopAb -1 THEN UnfoldTopAb 0 THEN Analyze 0
|
6. ∀a:Full(<q.hyp,r.(M @ N)>). a |= <q.hyp,r.(M @ N)>
7. a : Full(<hyp,M @ (q⌜⇒⌝r.N)>)
⊢  a |= <hyp,M @ (q⌜⇒⌝r.N)>  by With a (Analyze -2)
|
|\
| .....wf .....
| 6. a : Full(<hyp,M @ (q⌜⇒⌝r.N)>)
| ⊢  a ∈ Full(<q.hyp,r.(M @ N)>)
| | by Unfold ‘full_sequent_assignment‘ 0
| |
| ⊢  a
| |  ∈ {a:Assignment
| |     | a |= <q.hyp,r.(M @ N)> ∨ a |≠ <q.hyp,r.(M @ N)> }
| | by AbSetMemEqTypeCD
| |
| |\
| | ⊢  a ∈ Assignment  by Auto
| |
| .\
| . .....set predicate .....
| . ⊢  a |= <q.hyp,r.(M @ N)> ∨ a |≠ <q.hyp,r.(M @ N)>
| . | by Analyze -1 THEN Analyze -1
| . |
| . |\
| . | 6. a : Assignment
| . | 7. a |= <hyp,M @ (q⌜⇒⌝r.N)>
| . | ⊢   by DNth 1 0
| . | |
| . | ⊢  a |= <q.hyp,r.(M @ N)>
| . |   by BackThru
| . |      Thm* ∀hyp,M,N:Formula List, q,r:Formula, a:Assignment.
| . |           a |= <hyp,M @ (q⌜⇒⌝r.N)> ⟺ a |= <q.hyp,r.(M @ N)>
| . |      {formula_imp_right_sat}
| . |      THEN
| . |      Trivial
| . |
| . .\
| . . 6. a : Assignment
| . . 7. a |≠ <hyp,M @ (q⌜⇒⌝r.N)>
| . . ⊢   by DNth 2 0
| . . |
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| . . ⊢  a |≠ <q.hyp,r.(M @ N)>
| . .   by BackThru
| . .      Thm* ∀hyp,M,N:Formula List, q,r:Formula, a:Assignment.
| . .           a |≠ <q.hyp,r.(M @ N)> ⟺ a |≠ <hyp,M @ (q⌜⇒⌝r.N)>
| . .      {formula_imp_right_falsifiable}
| . .      THEN
| . .      Trivial
|
.\
. 6. a : Full(<hyp,M @ (q⌜⇒⌝r.N)>)
. 7. a |= <q.hyp,r.(M @ N)>
. ⊢
.   by BackThru
.      Thm* ∀hyp,M,N:Formula List, q,r:Formula, a:Assignment.
.           a |= <hyp,M @ (q⌜⇒⌝r.N)> ⟺ a |= <q.hyp,r.(M @ N)>
.      {formula_imp_right_sat}
END
```