```
formula_or_right_sound  THM

⊢  ∀hyp,M,N:Formula List, q,r:Formula.
|  |= <hyp,[q; 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. |= <hyp,[q; r/ M @ N]>
⊢  |= <hyp,M @ (q⌈∨⌉r.N)>   by UnfoldTopAb 0 THEN Analyze 0
|
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(<hyp,[q; r/ M @ N]>)  by AbSetMemEqTypeCD
| |
| |\
| | ⊢  a ∈ Assignment  by Auto
| |
| .\
| . .....set predicate .....
| . ⊢  a |= <hyp,[q; r/ M @ N]> ∨ a |≠ <hyp,[q; r/ M @ N]>
| . | by Analyze -1 THEN Analyze -1
| . |
| . |\
| . | 6. a : Assignment
| . | 7. a |= <hyp,M @ (q⌈∨⌉r.N)>
| . | ⊢
| . | | by FwdThru
| . | |    Thm* ∀hyp,M,N:Formula List, q,r:Formula, a:Assignment.
| . | |          a |= <hyp,[q; r/ M @ N]> ⟺ a |= <hyp,M @ (q⌈∨⌉r.N)>
| . | |    {formula_or_right_sat}
| . | |    [-1]
| . | |
| . | 8. a |= <hyp,[q; r/ M @ N]>
| . | ⊢   by Choose [1] THEN Trivial
| . |
| . .\
| . . 6. a : Assignment
| . . 7. a |≠ <hyp,M @ (q⌈∨⌉r.N)>
| . . ⊢
| . . | by FwdThru
| . . |    Thm* ∀hyp,M,N:Formula List, q,r:Formula, a:Assignment.
| . . |          a |≠ <hyp,[q; r/ M @ N]> ⟺ a |≠ <hyp,M @ (q⌈∨⌉r.N)>
| . . |    {formula_or_right_falsifiable}
| . . |    [-1]
| . . |
| . . 8. a |≠ <hyp,[q; r/ M @ N]>
| . . ⊢   by Choose [2] THEN Trivial
|
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. 6. a : Full(<hyp,M @ (q⌈∨⌉r.N)>)
. 7. a |= <hyp,[q; r/ M @ N]>
. ⊢
.   by BackThru
.      Thm* ∀hyp,M,N:Formula List, q,r:Formula, a:Assignment.
.           a |= <hyp,[q; r/ M @ N]> ⟺ a |= <hyp,M @ (q⌈∨⌉r.N)>
.      {formula_or_right_sat}
END
```