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split_int_seg_all_dom_sfa  THM

⊢  ∀i,j:ℤ.
|  i<j
|  ⇒
|  (∀F:({i..j⁻}→Prop).
|   (∀k:{i..j⁻}. F(k)) ⟺ F(i) & (∀k:{(i+1)..j⁻}. F(k)))  by UnivCD
|
1. i : ℤ
2. j : ℤ
3. i<j
4. F : {i..j⁻}→Prop
⊢  (∀k:{i..j⁻}. F(k)) ⟺ F(i) & (∀k:{(i+1)..j⁻}. F(k))
| by 2 Times Analyze
|
|\
| 5. ∀k:{i..j⁻}. F(k)
| ⊢  F(i) & (∀k:{(i+1)..j⁻}. F(k))  by Auto THEN BackThru: Hyp:5
|
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. 5. F(i) & (∀k:{(i+1)..j⁻}. F(k))
. ⊢  ∀k:{i..j⁻}. F(k)  by UnivCD
. |
. 6. k : {i..j⁻}
. ⊢  F(k)  by Decide: k = i ∈ ℤ
. |
. |\
. | 7. k = i
. | ⊢  F(k)  by Rewrite by k = i ∈ {i..j⁻}
. |
. .\
. . 7. ¬k = i
. . ⊢  F(k)  by BackThru: Hyp:5
END
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