```
or_via_exist_intseg_split_last  THM

⊢  ∀a,b:ℤ, P:({a..b⁻}→Prop).
   a<b ⇒ ((∃i:{a..b⁻}. P(i)) ⟺ (∃i:{a..(b-1)⁻}. P(i)) ∨ P(b-1))
  by UnivCD
     THEN
     Inst:
     Thm*  ∀a,b:ℤ, P:({a..b⁻}→Prop).
           a<b
           ⇒
           (∀c:ℤ.
            b = c+1
            ⇒
            ((∃i:{a..b⁻}. P(i)) ⟺ (∃i:{a..c⁻}. P(i)) ∨ P(c)))
     {or_via_exist_intseg_notnull}
     Using:[a | b | P | b-1]
END
```