```
exp_wf2  THM

⊢  ∀n,k:ℕ. (n↑k) ∈ ℕ  by UnivCD
|
1. n : ℕ
2. k : ℕ
⊢  (n↑k) ∈ ℕ  by NatInd 2
|
|\
| .....basecase .....
| 1. n : ℕ
| ⊢  (n↑0) ∈ ℕ  by RecCaseSplit ‘exp‘
|
.\
. .....upcase .....
. 2. k : ℤ
. 3. 0<k
. 4. (n↑k-1) ∈ ℕ
. ⊢   by RecCaseSplit ‘exp‘
. |
. .....set predicate .....
. 5. ¬k = 0
. ⊢  0≤n·(n↑k-1)
. | by Inst Thm* ∀a,b:ℤ, n:ℕ. a≤b ⇒ n·a≤n·b    {mul_preserves_le}
. |    [0;(n↑k-1);n]
. |
. |\
. | .....antecedent .....
. | ⊢  0≤(n↑k-1)  by Analyze 4
. |
. .\
. . 6. n·0≤n·(n↑k-1)
. . ⊢   by Auto
END
```