```
exp_exp_reduce1  THM

⊢  ∀a,b,c:ℕ. c↑(a·b) = (c↑b)↑a  by Auto
|
1. a : ℕ
2. b : ℕ
3. c : ℕ
⊢  c↑(a·b) = (c↑b)↑a
| by BackThru:
|    Thm*  ∀a,b:ℕ. (ℕa ∼ ℕb) ⟺ a = b    {fin_card_vs_nat_eq} ...wℕ
|
⊢  ℕ(c↑(a·b)) ∼ ℕ((c↑b)↑a)
| by 2 Times
|    (Rewrite← by
|     Thm*  ∀a,b:ℕ. (ℕa→ℕb) ∼ ℕ(b↑a)
|     {card_fun_vs_nsub_exp} ...wℕ)
|
⊢  (ℕ(a·b)→ℕc) ∼ (ℕa→ℕb→ℕc)
| by Rewrite by Thm*  ∀a,b:ℕ. (ℕa×ℕb) ∼ ℕ(a·b)    {nsub_mul_rw} ...wℕ
|
⊢  (ℕa×ℕb→ℕc) ∼ (ℕa→ℕb→ℕc)
  by Rewrite by
     Thm*  (A×B→C) ∼ (A→B→C)    {card_curry_simple} ...ℕ
END
```