```
chessboard_example  THM

⊢  ∀AH:Type. (AH ∼ ℕ8) ⇒ ((AH×{1...8}) ∼ ℕ64)  by Auto
|
1. AH : Type
2. AH ∼ ℕ8
⊢  (AH×{1...8}) ∼ ℕ64  by Rewrite by AH ∼ ℕ8
|
⊢  (ℕ8×{1...8}) ∼ ℕ64
| by Rewrite by Thm*  ∀a,b:ℤ. {a...b} ∼ ℕ(1+b-a)    {nsub_intiseg_rw}
|
⊢  (ℕ8×ℕ(1+8-1)) ∼ ℕ64  by Reduce Concl
|
⊢  (ℕ8×ℕ8) ∼ ℕ64
| by Rewrite by Thm*  ∀a,b:ℕ. (ℕa×ℕb) ∼ ℕ(a·b)    {nsub_mul_rw}
|
⊢  ℕ(8·8) ∼ ℕ64  by Reduce Concl
|
⊢  ℕ64 ∼ ℕ64  by Auto
END
```