```
mul_nat_com  THM

⊢  ∀a,b,c,d:ℕ. a = b ⇒ c = d ⇒ a•c = d•b ∈ ℕ  by Auto
|
1. a : ℕ
2. b : ℕ
3. c : ℕ
4. d : ℕ
5. a = b
6. c = d
⊢  a•c = d•b ∈ ℕ  by Analyze
|
|\
| ⊢  a•c = d•b ∈ ℤ  by Rewrite by a = b ∈ ℕ
| |
| ⊢  b•c = d•b  by Rewrite by c = d ∈ ℕ
| |
| ⊢  b•d = d•b  by Auto
|
.\
. .....set predicate .....
. ⊢  0≤a•c  by BackThru: Thm*  ∀a,b:ℕ. 0≤a•b    {mul_bounds_1a}
END
```