```
divides_anti_sym_n  THM

⊢  ∀a,b:ℕ. a | b ⇒ b | a ⇒ a = b  by UnivCD
|
1. a : ℕ
2. b : ℕ
3. a | b
4. b | a
⊢  a = b  by Decide (a = 0)
|
|\
| 5. a = 0
| ⊢  a = b  by Analyze 3
| |
| 3. c : ℤ
| 4. b = a·c
| 5. b | a
| 6. a = 0
| ⊢  a = b  by HypSubst 6 4
|
.\
. 5. ¬a = 0
. ⊢  a = b  by Decide (b = 0)
. |
. |\
. | 6. b = 0
. | ⊢  a = b  by Analyze 4
. | |
. | 4. c : ℤ
. | 5. a = b·c
. | 6. ¬a = 0
. | 7. b = 0
. | ⊢  a = b  by HypSubst 7 5
. |
. .\
. . 6. ¬b = 0
. . ⊢  a = b
. . | by (FwdThru Thm* ∀a:ℕ, b:ℕ⁺. a | b ⇒ a≤b    {divisors_bound}
. . |     [3])
. . |    THEN
. . |    (FwdThru Thm* ∀a:ℕ, b:ℕ⁺. a | b ⇒ a≤b    {divisors_bound}
. . |     [4])
. . |
. . 7. a≤b
. . 8. b≤a
. . ⊢  a = b  by Auto
END
```