```
divisors_bound  THM

⊢  ∀a:ℕ, b:ℕ+. a | b ⇒ a≤b  by UnivCD
|
1. a : ℕ
2. b : ℕ+
3. a | b
⊢  a≤b  by Analyze 3
|
3. c : ℤ
4. b = a·c
⊢  a≤b  by Assert (c≤0 ∨ c≥1)
|
5. c≤0 ∨ c≥1
⊢  a≤b  by Analyze 5
|
|\
| 5. c≤0
| ⊢  a≤b
| | by Using [‘n’,a]
| |    (FwdThru Thm* ∀a,b:ℤ, n:ℕ. a≤b ⇒ n·a≤n·b    {mul_preserves_le}
| |     [5])
| |
| 6. a·c≤a·0
| ⊢  a≤b  by Auto
|
.\
. 5. c≥1
. ⊢  a≤b
. | by Using [‘n’,a]
. |    (FwdThru Thm* ∀a,b:ℤ, n:ℕ. a≤b ⇒ n·a≤n·b    {mul_preserves_le}
. |     [5])
. |
. 6. a·1≤a·c
. ⊢  a≤b  by Auto
END
```