```
gcd_elim  THM

⊢  ∀a,b:ℤ. ∃y:ℤ. GCD(a;b;y) & gcd(a;b) = y  by UnivCD
|
1. a : ℤ
2. b : ℤ
⊢  ∃y:ℤ. GCD(a;b;y) & gcd(a;b) = y  by InstConcl [gcd(a;b)]
|
⊢  GCD(a;b;gcd(a;b)) & gcd(a;b) = gcd(a;b)  by Analyze 0
|
|\
| ⊢  GCD(a;b;gcd(a;b))
|   by BackThru Thm* ∀a,b:ℤ. GCD(a;b;gcd(a;b))    {gcd_sat_gcd_p}
|
.\
. ⊢  gcd(a;b) = gcd(a;b)  by Auto
END
```