```
coprime_elim  THM

⊢  ∀a,b:ℤ. CoPrime(a,b) ⟺ (∀c:ℤ. c | a ⇒ c | b ⇒ (c ∼ 1))
| by (RepUnfolds [`coprime`;`gcd_p`;`assoced`] 0) THEN GenRepD
|    THEN
|    (Try (BackThru Thm* ∀a:ℤ. 1 | a    {one_divs_any}))
|
|\
| 1. a : ℤ
| 2. b : ℤ
| 3. 1 | a
| 4. 1 | b
| 5. ∀z:ℤ. z | a & z | b ⇒ z | 1
| 6. c : ℤ
| 7. c | a
| 8. c | b
| ⊢  c | 1  by BackThru 5
|
.\
. 1. a : ℤ
. 2. b : ℤ
. 3. ∀c:ℤ. c | a ⇒ c | b ⇒ c | 1 & 1 | c
. 4. z : ℤ
. 5. z | a
. 6. z | b
. ⊢  z | 1  by BackThru 3
END
```