```
discrete_equality_transitive  THM

⊢  ∀eq:{T=₂}, x,y,z:T. eq(x,y) ⇒ eq(y,z) ⇒ eq(x,z)
| by RepeatFor 5 (Analyze 0)
|
1. T : Type
2. eq : {T=₂}
3. x : T
4. y : T
5. z : T
⊢  eq(x,y) ⇒ eq(y,z) ⇒ eq(x,z)
| by Analyze 2 THEN Analyze 3 THEN UnivCD
|
2. eq : T→T→𝔹
3. ∀x,y:T. eq(x,y) ⟺ x = y
4. eq ∈ T→T→𝔹
5. x : T
6. y : T
7. z : T
8. eq(x,y)
9. eq(y,z)
⊢  eq(x,z)  by HypBackchain
|
⊢  z = x  by FwdThru 3 [-1]
|
10. y = z
⊢  z = x  by FwdThru 3 [-3]
END
```