```
card_quotient  THM

⊢  (q:A/E×{x:A| q = x ∈ A/E }) ∼ A  by Auto
|
1. A : Type
2. E : A→A→Prop
3. EquivRel a,a':A. E(a;a')
⊢  (q:A/E×{x:A| q = x }) ∼ A  by Witness: λqx.qx.2 | λx.<x,x>
|
⊢  InvFuns(q:A/E×{x:A| q = x };A;λqx.qx.2;λx.<x,x>)
| by Analyze THEN Reduce Concl THEN Rename-1: qx
|
4. qx : q:A/E×{x:A| q = x }
⊢  <qx.2,qx.2> = qx ∈ q:A/E×{x:A| q = x }
| by New:[q | x] Analyze-1 THEN Reduce Concl
|
4. q : A/E
5. x : {x:A| q = x }
⊢  <x,x> = <q,x> ∈ q:A/E×{x:A| q = x ∈ A/E }  by Analyze
|
⊢  x = q ∈ A/E  by Analyze5
END
```