```
invfuns_are_surj  THM

⊢  InvFuns(A;B;f;g) ⇒ Surj(A; B; f) & Surj(B; A; g)  by Auto
|
1. A : Type
2. B : Type
3. f : A⟶B
4. g : B⟶A
5. InvFuns(A;B;f;g)
⊢  Surj(A; B; f) & Surj(B; A; g)
| by FwdThru:
|    Thm*  InvFuns(A;B;f;g) ⇒ InvFuns(B;A;g;f)    {inv_funs_2_sym}
|    on [ InvFuns(A;B;f;g) ]
|
6. InvFuns(B;A;g;f)
⊢  Surj(A; B; f) & Surj(B; A; g)
| by FwdThru:
|    Thm*  InvFuns(A;B;f;g) ⇒ Surj(A; B; f)
|    {fun_with_inv2_is_surj}
|    on [ InvFuns(A;B;f;g) ]
|    THEN
|    FwdThru:
|    Thm*  InvFuns(A;B;f;g) ⇒ Surj(A; B; f)
|    {fun_with_inv2_is_surj}
|    on [ InvFuns(B;A;g;f) ]
|
7. Surj(A; B; f)
8. Surj(B; A; g)
⊢  Surj(A; B; f) & Surj(B; A; g)  by Analyze
END
```