Inference at $*$ 1 1
 of proof for Lemma eq_int_eq_false_elim_sqequal:

1. $i : \mathbb{Z}$
2. $j : \mathbb{Z}$
3. $(i =_0 j) \sim \mathrm{ff}$

$\vdash i \neq j$

```
  by (\p. let x, y = dest_sqequal (h (-1) p) in
         (Assert (
  mk_equal_term bool_term y y)
            THENL [(Auto_aux (first_nat 1:n) ((first_nat 1:n
  ),(first_nat 3:n)) (first_tok :t) inil_term); SqSubstAtAddr [2] x (-1)

                          THENL [(Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 4:n
  )) (first_tok :t) inil_term); Id]]) p)
```

1:

4. $(i =_0 j) = \mathrm{ff}$

$\vdash i \neq j$

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