Inference at $*$ 1 2
 of proof for Lemma assert_of_eq_atom:

1. x : Atom
2. y : Atom
3. $\uparrow$if x=y then tt else ff
4. $\neg(x = y)$

$\vdash x = y$
 by ((RWH (ReduceThenC (Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 4:n
 )) (first_tok :t) inil_term)) 3)
 CollapseTHENA ((Auto_aux (first_nat 1:n) ((first_nat
  1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·

  1:

    3. $\uparrow$ff
    4. $\neg(x = y)$
    $\vdash x = y$
  .