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

1. $x : \mathbb{B}$
2. $y : \mathbb{B}$
3. $x = y$

$\vdash x \sim y$

```
  by (let T = Unfold ‘bool‘
in
   ((((((((((T 1)
 CollapseTHEN (T 2))·)

    CollapseTHEN (T 3))·)
 CollapseTHEN (ApFunToHypEquands ‘z’ case z
  of inl(x) => x
   | inr(x) => x Unit 3))·)
 CollapseTHENM (ApFunToHypEquands ‘z’ case z
  of inl(x) => True
   | inr(x) => False ℙ1 3))·)
 CollapseTHENA ((Auto_aux (first_nat 1:n) ((first_nat 1:n
  ),(first_nat 3:n)) (first_tok :t) inil_term)))·)

  1:

     1. x : ?Unit
     2. y : ?Unit
     3. x = y
     4. case x of inl(x) => x | inr(x) => x = case y of inl(x) => x | inr(x) => x
     5. case x of inl(x) => True | inr(x) => False
        =
        case y of inl(x) => True | inr(x) => False
     ⊢ x ~ y
  .
```