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

1. $p : \mathbb{B}$
2. $q : \mathbb{B}$
$\vdash$ $(\uparrow p =\mathrm{b}\ q) \iff (p = q)$
  by Unfold ‘eq_bool‘ 0

  1:

    $\vdash$ $(\uparrow((p \wedge_b q) \vee_b ((\neg_b p) \wedge_b (\neg_b q)))) \iff (p = q)$
  .