

Inference at * 1 1
of proof for Lemma branch-ifthenelse:

1. $b : \mathbb{B}$
 2. $P : \text{Top}$
 3. $Q : \text{Top}$
 4. $x : \uparrow b$
 5. $\text{bool-decider}(b) = (\text{inl } x)$
- $\vdash P \sim \text{if } b \text{ then } P \text{ else } Q \text{ fi}$
by `AutoBoolCase` b
- .