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

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

$\vdash i = j$

 by ((Decide $i = j$)
 CollapseTHEN ((Auto_aux (first_nat 1:n) ((first_nat 1:n
 ),(first_nat 4:n)) (first_tok :t) inil_term)))·

 1:

 4. $\neg(i = j)$
 $\vdash i = j$

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