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

1. A : Type
2. x : A
3. y : A
4. P : $A \rightarrow \mathbb{P}$
5. i : $\mathbb{Z}$
6. j : $\mathbb{Z}$
7. P(if $(i =_0 j)$ then x else y fi)

$\vdash P$(if $(i =_0 j)$ then x else y fi)
 by InteriorProof ((EqIntCases 7)
 CollapseTHEN ((Auto_aux (first_nat 1:n) ((first_nat
 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·

1: . . . . .truecase. . . . . NILNIL

7. $P(x)$
8. $i = j$

$\vdash P$(if $(i =_0 j)$ then x else y fi)

2: . . . . .falsecase. . . . . NILNIL

7. $P(y)$
8. $i \neq j$

$\vdash P$(if $(i =_0 j)$ then x else y fi)

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