

Inference at * 2 1
of proof for Lemma absval_elim:

1. $P : \mathbb{Z} \rightarrow \mathbb{P}$
2. $\forall x:\mathbb{N}. P(x)$
3. $x : \mathbb{Z}$

$\vdash P(\text{if } 0 \leq_z x \text{ then } x \text{ else } -x \text{ fi})$
by InteriorProof (((((BoolCasesOnCExp $0 \leq_z x$)
CollapseTHENM (AbReduce 0)).)

CollapseTHENA ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat
3:n)) (first_tok :t) inil_term))).

1:

4. $0 \leq x$
 $\vdash P(x)$

2:

4. $x < 0$
 $\vdash P(-x)$

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