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

1. $a : \mathbb{Z}$
2. $b : \mathbb{Z}$
3. $(a * b) > 0$

$\vdash ((a > 0)\ \&\ (b > 0)) \vee ((a < 0)\ \&\ (b < 0))$

 by ((((InstLemma 'int_trichot' [a;0])
 CollapseTHENM (GenExRepD))·)
 CollapseTHENA (
  (Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·

 1:

  4. $a < 0$

  $\vdash ((a > 0)\ \&\ (b > 0)) \vee ((a < 0)\ \&\ (b < 0))$

 2:

  4. $a = 0$

  $\vdash ((a > 0)\ \&\ (b > 0)) \vee ((a < 0)\ \&\ (b < 0))$

 3:

  4. $a > 0$

  $\vdash ((a > 0)\ \&\ (b > 0)) \vee ((a < 0)\ \&\ (b < 0))$

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http://www.nuprl.org/FDLcontent/p0_942988_/p121_74180_{pos_mul_arg_bounds}1.html