

Inference at * 1
of proof for Lemma pos_mul_arg_bounds:

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

```