

Inference at * 1 2 1
of proof for Lemma mul_preserves_lt:

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1. a : ℤ
2. b : ℤ
3. (a+1) ≤ b
4. n : ℤ
5. 1 < n
6. (((n - 1) * a)+1) ≤ ((n - 1) * b)
⊢ (n * a) < (n * b)
  by ((FwdThruLemma 'add_functionality_wrt_le' [3;6])
    CollapseTHEN (
      (Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·

1:

7. (a+1+((n - 1) * a)+1) ≤ (b+((n - 1) * b))
⊢ (n * a) < (n * b)
.
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