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

1. $a : \mathbb{Z}$
2. $b : \mathbb{Z}$
3. $n : \mathbb{Z}$
4. $a < b$

$\vdash (a+n) < (b+n)$

 by ((Using ['n',-n] (BackThruLemma 'add_cancel_in_lt'))
 CollapseTHEN (
   (Auto_aux (first_nat 1:n) ((first_nat 2:n),(first_nat 3:n)) (first_tok :t) inil_term)))$\cdot$

   .

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http://www.nuprl.org/FDLcontent/p0_942988_/p121_76617_{add_mono_wrt_lt}1.html