Inference at $*$ 1 0
of proof for Lemma lt_int_eq_false_elim:

1. $i : \mathbb{Z}$
2. $j : \mathbb{Z}$
3. $i <\text{z } j = \text{ff}$

$\vdash \neg(i < j)$

by PERMUTE{1:n, 2:n, 3:n, 1:n, 4:n, 2:n, 5:n, 6:n, 7:n, 8:n, 9:n, 7:n, 6:n, 10:n}

1: .....wf..... NILNIL

$\vdash (i <\text{z } j = \text{ff}) \in \mathbb{P}_1$

2: .....wf..... NILNIL

$\vdash (\uparrow j \leq\text{z } i) \in \mathbb{P}_1$

3: .....wf..... NILNIL

$\vdash (j \leq i) \in \mathbb{P}_1$

4: .....wf..... NILNIL

$\vdash (\uparrow(\neg_b i <\text{z } j)) \in \mathbb{P}_1$

5: .....wf..... NILNIL

$\vdash i <\text{z } j \in \mathbb{B}$

6: .....wf..... NILNIL

$\vdash i \in \mathbb{Z}$

7: .....wf..... NILNIL

$\vdash j \in \mathbb{Z}$

8: .....antecedent..... NILNIL

$\vdash$ True

9: .....wf..... NILNIL

4. $(\uparrow(\neg_b i <\text{z } j)) = (\uparrow j \leq\text{z } i)$

$\vdash \mathbb{P}_1 = \mathbb{P}_1$

10:

3. $j \leq i$

$\vdash \neg(i < j)$

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