

Inference at * 1 0 1 3 1
of proof for Lemma integer sqrt:

1. $n : \mathbb{Z}$
2. $0 < n$
3. $((n - 1) \geq 0) \Rightarrow (\exists r:\mathbb{N}. (((r * r) \leq (n - 1)) \ \&\ ((n - 1) < ((r+1) * (r+1))))$
4. $n \geq 0$
 $\vdash \exists r:\mathbb{N}. (((r * r) \leq n) \ \&\ (n < ((r+1) * (r+1))))$
by ((Thin (-1))
CollapseTHEN (D (-1))).

1:antecedent..... NILNIL

2. $0 < n$
 $\vdash (n - 1) \geq 0$
2:

3. $\exists r:\mathbb{N}. (((r * r) \leq (n - 1)) \ \&\ ((n - 1) < ((r+1) * (r+1))))$
 $\vdash \exists r:\mathbb{N}. (((r * r) \leq n) \ \&\ (n < ((r+1) * (r+1))))$
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