

L^AT_EX for Logic

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Theorem 1 (belong) $a, \neg a, \neg b \vdash b$.

Theorem 2 (notCancellation) $a, \neg a, \neg b \vdash b$.

Theorem 3 (firstProof) $a, \neg a, \neg b \vdash b$.

(aa) $a, \neg a, \neg b \vdash b$

belong

(bb) $a, \neg a, \neg b \vdash b$

belong

(cc) $a, \neg a, \neg b \vdash b$

notCancellation(aa)(bb)

Theorem 4 (fist proof) $a, \neg a, \neg b \vdash b$.

(1) $a, \neg a, \neg b \vdash b$

belong

(2) $a, \neg a, \neg b \vdash \neg a$

belong

(3) $a, \neg a, \neg b \vdash b$

not_cancellation(1)(2)

Theorem 5 (second proof) $a, \neg a, \neg b \vdash b$.

(1) $a, \neg a, \neg b \vdash b$

belong

(2) $a, \neg a, \neg b \vdash \neg a$

belong

(3) $a, \neg a, \neg b \vdash b$

not_cancellation(1)(2)