

t87_zf_lang
(TMHCjCy99o54PbmfPGmfPuenWC95eCmqUCS)

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Let $v1_zf_lang : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v5_zf_lang : \iota \Rightarrow o$ be given. Let $k29_zf_lang : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k21_zf_lang : \iota \Rightarrow \iota$ be given. Let $k22_zf_lang : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k7_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (k29_zf_lang \\ & (k7_zf_lang X0 X1) = k2_xboole_0 (k2_xboole_0 (k29_zf_lang X0) \\ & (k29_zf_lang X1)) (k1_tarski (k7_zf_lang X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((v5_zf_lang \\ & X0) \Rightarrow ((\neg(X1 = k21_zf_lang X0) \wedge (\forall X2.((v1_zf_lang X2) \wedge (m2_finseq_1 \\ & X2 k5_numbers)) \Rightarrow (k7_zf_lang X1 X2 \neq X0))) \wedge ((\exists X2.((v1_zf_lang \\ & X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge (k7_zf_lang X1 X2 = X0)) \Rightarrow (X1 = \\ & k21_zf_lang X0)) \wedge ((\neg(X1 = k22_zf_lang X0) \wedge (\forall X2.((v1_zf_lang \\ & X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow (k7_zf_lang X2 X1 \neq X0))) \wedge ((\\ & \exists X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge (k7_zf_lang \\ & X2 X1 = X0)) \Rightarrow (X1 = k22_zf_lang X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ & v5_zf_lang X0) \Leftrightarrow (\exists X1.((v1_zf_lang X1) \wedge (m2_finseq_1 X1 \\ & k5_numbers)) \wedge (\exists X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge \\ & (X0 = k7_zf_lang X1 X2)))) \end{aligned} \quad (4)$$

Theorem 1

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((v5_zf_lang X0) \Rightarrow (k29_zf_lang X0 = k2_xboole_0 (k2_xboole_0 (k29_zf_lang (k21_zf_lang X0)) (k29_zf_lang (k22_zf_lang X0)))) (k1_tarski X0)))$$