

t119_zf_lang1
(TMTRRnAjcepynnek48RAzd5coNB5RrP6eaf)

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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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zf_lang : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_zf_model : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_zf_lang : \iota \Rightarrow \iota$ be given. Let $r2_zf_model : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge \\ & (v1_funct_2 X1 k1_zf_lang X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k1_zf_lang X0)))) \Rightarrow (\forall X2.((v1_zf_lang X2) \wedge (m2_finseq_1 \\ & X2 k5_numbers)) \Rightarrow (\forall X3.((v1_zf_lang X3) \wedge (m2_finseq_1 X3 \\ & k5_numbers)) \Rightarrow ((r1_zf_model X0 X1 (k11_zf_lang X2 X3)) \Leftrightarrow ((r1_zf_model \\ & X0 X1 X2) \Rightarrow (r1_zf_model X0 X1 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge \\ & (v1_funct_2 X1 k1_zf_lang X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k1_zf_lang X0)))) \Rightarrow (\forall X2.((v1_zf_lang X2) \wedge (m2_finseq_1 \\ & X2 k5_numbers)) \Rightarrow ((r1_zf_model X0 X1 X2) \Leftrightarrow (\neg r1_zf_model X0 X1 (k6_zf_lang \\ & X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (3)$$

Assume the following.

$$\forall X0. ((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow (v1_zf_lang (k6_zf_lang X0)) \quad (4)$$

Assume the following.

$$\forall X0.(m1_finseq_1 X0 k5_numbers) \Rightarrow (m2_finseq_1 (k6_zf_lang X0) k5_numbers) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \wedge \\ & ((v1_zf_lang X1) \wedge (m1_finseq_1 X1 k5_numbers))) \Rightarrow ((v1_zf_lang \\ & (k11_zf_lang X0 X1)) \wedge (m2_finseq_1 (k11_zf_lang X0 X1) k5_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_zf_lang X1) \wedge (\\ & m2_finseq_1 X1 k5_numbers)) \Rightarrow ((r2_zf_model X0 X1) \Leftrightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k1_zf_lang X0) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang X0)))))) \Rightarrow (r1_zf_model \\ & X0 X2 X1)))) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\forall X2.(\\ & \neg v1_xboole_0 X2) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 \\ & X3 k1_zf_lang X2) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k1_zf_lang \\ & X2)))))) \Rightarrow ((r1_zf_model X2 X3 (k11_zf_lang (k6_zf_lang X0) (k11_zf_lang \\ & X0 X1))) \wedge (r2_zf_model X2 (k11_zf_lang (k6_zf_lang X0) (k11_zf_lang \\ & X0 X1)))))) \end{aligned}$$