

t37_zf_lang1 (TM-
LAuco4aCRGsvdDz1iQLHR7kNuvSxL9NYK)

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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 $v11_zf_lang : \iota \Rightarrow o$ be given. Let $v4_zf_lang : \iota \Rightarrow o$ be given. Let $v6_zf_lang : \iota \Rightarrow o$ be given. Let $k20_zf_lang : \iota \Rightarrow \iota$ be given. Let $k24_zf_lang : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zf_lang : \iota$ be given. Let $k23_zf_lang : \iota \Rightarrow \iota$ be given. Let $k13_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_zf_lang : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & (m2_subset_1 X1 k5_numbers k1_zf_lang) \Rightarrow ((k23_zf_lang (k13_zf_lang \\ & X1 X0) = X1) \wedge (k24_zf_lang (k13_zf_lang X1 X0) = X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & (m2_subset_1 X1 k5_numbers k1_zf_lang) \Rightarrow ((k23_zf_lang (k8_zf_lang \\ & X1 X0) = X1) \wedge (k24_zf_lang (k8_zf_lang X1 X0) = X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ & v11_zf_lang X0) \Rightarrow (X0 = k13_zf_lang (k23_zf_lang X0) (k24_zf_lang \\ & X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (k20_zf_lang \\ & (k6_zf_lang X0) = X0) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & (m2_subset_1 X1 k5_numbers k1_zf_lang) \Rightarrow (k20_zf_lang (k13_zf_lang \\ & X1 X0) = k8_zf_lang X1 (k6_zf_lang X0))) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((v11_zf_lang X0) \Rightarrow ((k23_zf_lang X0 = k23_zf_lang (k20_zf_lang X0)) \wedge (k24_zf_lang X0 = k20_zf_lang (k24_zf_lang (k20_zf_lang X0))))) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (7)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow (v1_zf_lang (k6_zf_lang X0)) \quad (8)$$

Assume the following.

$$\forall X0. (m1_finseq_1 X0 k5_numbers) \Rightarrow (m2_finseq_1 (k6_zf_lang X0) k5_numbers) \quad (9)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow ((v1_zf_lang (k24_zf_lang X0)) \wedge (m2_finseq_1 (k24_zf_lang X0) k5_numbers)) \quad (10)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow (m2_subset_1 (k23_zf_lang X0) k5_numbers k1_zf_lang) \quad (11)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow ((v1_zf_lang (k20_zf_lang X0)) \wedge (m2_finseq_1 (k20_zf_lang X0) k5_numbers)) \quad (12)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((v11_zf_lang X0) \Leftrightarrow (\exists X1. (m2_subset_1 X1 k5_numbers k1_zf_lang) \wedge (\exists X2. ((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge (X0 = k13_zf_lang X1 X2)))) \quad (13)$$

Assume the following.

$$\forall X0. (m2_subset_1 X0 k5_numbers k1_zf_lang) \Rightarrow (\forall X1. ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (k13_zf_lang X0 X1 = k6_zf_lang (k8_zf_lang X0 (k6_zf_lang X1)))) \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ v6_zf_lang X0) \Leftrightarrow (\exists X1.(m2_subset_1 X1 k5_numbers k1_zf_lang) \wedge \\ (\exists X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge (\\ X0 = k8_zf_lang X1 X2)))) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ v4_zf_lang X0) \Leftrightarrow (\exists X1.((v1_zf_lang X1) \wedge (m2_finseq_1 X1 \\ k5_numbers)) \wedge (X0 = k6_zf_lang X1))) \end{aligned} \quad (16)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ v11_zf_lang X0) \Rightarrow ((v4_zf_lang X0) \wedge ((v6_zf_lang (k20_zf_lang \\ X0)) \wedge (v4_zf_lang (k24_zf_lang (k20_zf_lang X0)))))) \end{aligned}$$