

t85_zf_lang
(TMXXL9NnKi24h6FKQo9arQZ1oyjvKLkdeZY)

October 27, 2020

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 $v7_zf_lang : \iota \Rightarrow o$ be given. Let $k29_zf_lang : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $r2_zf_lang : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_zf_lang : \iota \Rightarrow o$ be given. Let $r3_zf_lang : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k21_zf_lang : \iota \Rightarrow \iota$ be given. Let $k22_zf_lang : \iota \Rightarrow \iota$ be given. Let $v4_zf_lang : \iota \Rightarrow o$ be given. Let $k20_zf_lang : \iota \Rightarrow \iota$ be given. Let $r1_zf_lang : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v2_zf_lang : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zf_lang : \iota$ be given. Let $k4_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_zf_lang : \iota \Rightarrow o$ be given. Let $k5_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_zf_lang : \iota \Rightarrow \iota$ be given. Let $k7_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_zf_lang : \iota \Rightarrow o$ be given. Let $k8_zf_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((r2_zf_lang X0 X1) \Rightarrow (r1_tarski (k29_zf_lang X0) (k29_zf_lang X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ & v5_zf_lang X0) \Rightarrow ((r3_zf_lang (k21_zf_lang X0) X0) \wedge (r3_zf_lang (k22_zf_lang X0) X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ & v4_zf_lang X0) \Rightarrow (r3_zf_lang (k20_zf_lang X0) X0)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\neg (v7_zf_lang X0) \wedge (r3_zf_lang X1 X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\neg(r3_zf_lang \\ & X0 X1) \wedge (\forall X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow \\ & (\neg r1_zf_lang X2 X1)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((r1_zf_lang \\ & X0 X1) \Rightarrow (r3_zf_lang X0 X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ & ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\neg(r1_zf_lang \\ & X0 X1) \wedge (r1_xreal_0 (k3_finseq_1 X1) (k3_finseq_1 X0)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ & \neg(v2_zf_lang X0) \wedge (\forall X1.(m2_subset_1 X1 k5_numbers k1_zf_lang) \Rightarrow \\ & (\forall X2.(m2_subset_1 X2 k5_numbers k1_zf_lang) \Rightarrow (X0 \neq k4_zf_lang \\ & X1 X2)))) \wedge (((\exists X1.(m2_subset_1 X1 k5_numbers k1_zf_lang) \wedge \\ & (\exists X2.(m2_subset_1 X2 k5_numbers k1_zf_lang) \wedge (X0 = k4_zf_lang \\ & X1 X2))) \Rightarrow (v2_zf_lang X0)) \wedge ((\neg(v3_zf_lang X0) \wedge (\forall X1.(m2_subset_1 \\ & X1 k5_numbers k1_zf_lang) \Rightarrow (\forall X2.(m2_subset_1 X2 k5_numbers \\ & k1_zf_lang) \Rightarrow (X0 \neq k5_zf_lang X1 X2)))) \wedge (((\exists X1.(m2_subset_1 \\ & X1 k5_numbers k1_zf_lang) \wedge (\exists X2.(m2_subset_1 X2 k5_numbers \\ & k1_zf_lang) \wedge (X0 = k5_zf_lang X1 X2))) \Rightarrow (v3_zf_lang X0)) \wedge ((\neg(v4_zf_lang \\ & X0) \wedge (\forall X1.((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow \\ & (X0 \neq k6_zf_lang X1))) \wedge (((\exists X1.((v1_zf_lang X1) \wedge (m2_finseq_1 \\ & X1 k5_numbers)) \wedge (X0 = k6_zf_lang X1)) \Rightarrow (v4_zf_lang X0)) \wedge ((\neg(v5_zf_lang \\ & X0) \wedge (\forall X1.((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow \\ & (\forall X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow (\\ & X0 \neq k7_zf_lang X1 X2)))) \wedge (((\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))) \Rightarrow (v5_zf_lang X0)) \wedge ((\neg(\\ & v6_zf_lang X0) \wedge (\forall X1.(m2_subset_1 X1 k5_numbers k1_zf_lang) \Rightarrow \\ & (\forall X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow (\\ & X0 \neq k8_zf_lang X1 X2)))) \wedge (((\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))) \Rightarrow (v6_zf_lang X0))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (r2_zf_lang X0 X0) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\neg(v7_zf_lang \\ X0) \wedge (r1_zf_lang X1 X0))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. \\ ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((r1_zf_lang \\ X0 (k6_zf_lang X1)) \Leftrightarrow (X0 = X1))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.k2_tarski X0 X0 = k1_tarski X0 \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ k3_finseq_1 X0 = np_3) \Rightarrow (v7_zf_lang X0)) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (r1_xxreal_0 \\ np_3 (k3_finseq_1 X0)) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ v7_zf_lang X0) \Rightarrow (k3_finseq_1 X0 = np_3)) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\neg \\ (\neg v7_zf_lang X0) \wedge ((\neg v4_zf_lang X0) \wedge ((\neg v5_zf_lang X0) \wedge (\neg v6_zf_lang \\ X0)))) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (17)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ v1_zf_lang (k22_zf_lang X0)) \wedge (m2_finseq_1 (k22_zf_lang X0) k5_numbers)) \end{aligned} \quad (18)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow ((\\ v1_zf_lang (k21_zf_lang X0)) \wedge (m2_finseq_1 (k21_zf_lang X0) k5_numbers)) \end{aligned} \quad (19)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow ((v1_zf_lang (k20_zf_lang X0)) \wedge (m2_finseq_1 (k20_zf_lang X0) k5_numbers)) \quad (20)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. (X1 = k29_zf_lang X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.((v1_zf_lang X3) \wedge (m2_finseq_1 X3 k5_numbers)) \wedge ((X3 = X2) \wedge (r2_zf_lang X3 X0)))))) \quad (21)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((r3_zf_lang X0 X1) \Leftrightarrow ((r2_zf_lang X0 X1) \wedge (X0 \neq X1)))) \quad (22)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (23)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\forall X1. ((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((r1_zf_lang X0 X1) \Leftrightarrow (\neg (X1 \neq k6_zf_lang X0) \wedge ((\forall X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow ((X1 \neq k7_zf_lang X0 X2) \wedge (X1 \neq k7_zf_lang X2 X0))) \wedge (\forall X2.(m2_subset_1 X2 k5_numbers k1_zf_lang) \Rightarrow (X1 \neq k8_zf_lang X2 X0)))))) \quad (24)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((v4_zf_lang X0) \Rightarrow (\forall X1.((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow ((X1 = k20_zf_lang X0) \Leftrightarrow (k6_zf_lang X1 = X0)))) \quad (25)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (26)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((v6_zf_lang X0) \Leftrightarrow (\exists X1.(m2_subset_1 X1 k5_numbers k1_zf_lang) \wedge (\exists X2.((v1_zf_lang X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge (X0 = k8_zf_lang X1 X2)))) \quad (27)$$

Assume the following.

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((v4_zf_lang X0) \Leftrightarrow (\exists X1.((v1_zf_lang X1) \wedge (m2_finseq_1 X1 k5_numbers)) \wedge (X0 = k6_zf_lang X1))) \quad (28)$$

Theorem 1

$$\forall X0.((v1_zf_lang X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow ((v7_zf_lang X0) \Leftrightarrow (k29_zf_lang X0 = k1_tarski X0))$$