

l28_substut1 (TMcZDfNmYTMts- gLmKkdXXcyTQCwzhEr5Wyc)

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Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k8_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k1_substut1 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_qc_lang1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 k5_numbers) \Rightarrow \\ & (\forall X2. (m2_subset_1 X2 (k6_qc_lang1 X0) (k8_qc_lang1 X0 X1)) \Rightarrow \\ & (\forall X3. ((v3_card_1 X3 X1) \wedge (m2_finseq_1 X3 (k2_qc_lang1 X0)))) \Rightarrow \\ & (m2_finseq_1 (k7_finseq_1 (k12_finseq_1 (k8_qc_lang1 X0 X1) X2) \\ & X3) (k2_zfmisc_1 k5_numbers (k1_qc_lang1 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\neg v1_xboole_0 (k1_substut1 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (X2 = k2_zfmisc_1 X0 X1) \Leftrightarrow (\forall X3. \\ & (X3 \in X2) \Leftrightarrow (\exists X4. \exists X5. (X4 \in X0) \wedge ((X5 \in X1) \wedge (X3 = k4_tarski \\ & X4 X5)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k13_finseq_1 X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (m2_finseq_1 X2 X0)) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ k5_numbers) \Rightarrow \\ & (\forall X2.(m2_subset_1\ X2\ (k6_qc_lang1\ X0)\ (k8_qc_lang1\ X0\ X1)) \Rightarrow \\ & (\forall X3.((v3_card_1\ X3\ X1) \wedge (m2_finseq_1\ X3\ (k2_qc_lang1\ X0))) \Rightarrow \\ & (\forall X4.(m1_subset_1\ X4\ (k1_subst1\ X0)) \Rightarrow (k4_tarski\ (k7_finseq_1 \\ & (k12_finseq_1\ (k8_qc_lang1\ X0\ X1)\ X2)\ X3)\ X4 \in k2_zfmisc_1\ (k13_finseq_1 \\ & (k2_zfmisc_1\ k5_numbers\ (k1_qc_lang1\ X0))\ (k1_subst1\ X0)))))) \end{aligned}$$