

t19_qc_lang1
(TMTBWG8YT4o1LRK47AESKR3iEfrayjbvqen)

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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 $k9_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $v2_qc_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_2 : \iota$ be given. Let $np_3 : \iota$ be given. Let $k12_qc_lang1 : \iota \Rightarrow \iota$ 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 $v3_qc_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_qc_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_qc_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k9_qc_lang1 \\
& X0)) \Rightarrow ((k1_xtuple_0 (k1_funct_1 (k11_qc_lang1 X0 (k12_qc_lang1 \\
& X0)) np_1) = k6_numbers) \wedge ((\neg(v2_qc_lang1 X1 X0) \wedge (\forall X2. \\
& (m1_subset_1 X2 k5_numbers) \Rightarrow (\neg m2_subset_1 (k1_funct_1 (k11_qc_lang1 \\
& X0 X1) np_1) (k6_qc_lang1 X0) (k8_qc_lang1 X0 X2)))) \wedge ((v3_qc_lang1 \\
& X1 X0) \Rightarrow (k1_xtuple_0 (k1_funct_1 (k11_qc_lang1 X0 X1) np_1) = np_1)) \wedge \\
& (((v4_qc_lang1 X1 X0) \Rightarrow (k1_xtuple_0 (k1_funct_1 (k11_qc_lang1 \\
& X0 X1) np_1) = np_2)) \wedge ((v5_qc_lang1 X1 X0) \Rightarrow (k1_xtuple_0 (k1_funct_1 \\
& (k11_qc_lang1 X0 X1) np_1) = np_3))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 k5_numbers) \Rightarrow \\
& (\forall X2.(m2_subset_1 X2 (k6_qc_lang1 X0) (k8_qc_lang1 X0 X1)) \Rightarrow \\
& ((k1_xtuple_0 X2 \neq k6_numbers) \wedge ((k1_xtuple_0 X2 \neq np_1) \wedge ((k1_xtuple_0 \\
& X2 \neq np_2) \wedge (k1_xtuple_0 X2 \neq np_3))))))
\end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k9_qc_lang1 \\ X0)) \Rightarrow ((v2_qc_lang1\ X1\ X0) \Rightarrow ((k1_xtuple_0\ (k1_funct_1\ (k11_qc_lang1 \\ X0\ X1)\ np_1) \neq k6_numbers) \wedge ((k1_xtuple_0\ (k1_funct_1\ (k11_qc_lang1 \\ X0\ X1)\ np_1) \neq np_1) \wedge ((k1_xtuple_0\ (k1_funct_1\ (k11_qc_lang1 \\ X0\ X1)\ np_1) \neq np_2) \wedge (k1_xtuple_0\ (k1_funct_1\ (k11_qc_lang1 \\ X0\ X1)\ np_1) \neq np_3)))))) \end{aligned}$$