

t20_qc_lang1 (TMKQbXWUQnUPqBjqdPgT- CiVv45FyX9bVh36)

October 27, 2020

Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $v2_qc_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_qc_lang1 : \iota \Rightarrow \iota$ 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. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ 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 $k5_numbers : \iota$ 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 $np_0 : \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k9_qc_lang1 \\ X0)) \Rightarrow ((v2_qc_lang1 X1 X0) \Rightarrow ((k1_xtuple_0 (k1_funct_1 (k11_qc_lang1 \\ X0 X1) np_1) \neq k6_numbers) \wedge ((k1_xtuple_0 (k1_funct_1 (k11_qc_lang1 \\ X0 X1) np_1) \neq np_1) \wedge ((k1_xtuple_0 (k1_funct_1 (k11_qc_lang1 \\ X0 X1) np_1) \neq np_2) \wedge (k1_xtuple_0 (k1_funct_1 (k11_qc_lang1 \\ X0 X1) np_1) \neq np_3))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k9_qc_lang1 \\ X0)) \Rightarrow ((k1_xtuple_0 (k1_funct_1 (k11_qc_lang1 X0 (k12_qc_lang1 \\ X0)) np_1) = k6_numbers) \wedge ((\neg(v2_qc_lang1 X1 X0) \wedge (\forall X2. \\ (m1_subset_1 X2 k5_numbers) \Rightarrow (\neg m2_subset_1 (k1_funct_1 (k11_qc_lang1 \\ X0 X1) np_1) (k6_qc_lang1 X0) (k8_qc_lang1 X0 X2)))) \wedge ((v3_qc_lang1 \\ X1 X0) \Rightarrow (k1_xtuple_0 (k1_funct_1 (k11_qc_lang1 X0 X1) np_1) = np_1)) \wedge \\ (((v4_qc_lang1 X1 X0) \Rightarrow (k1_xtuple_0 (k1_funct_1 (k11_qc_lang1 \\ X0 X1) np_1) = np_2)) \wedge ((v5_qc_lang1 X1 X0) \Rightarrow (k1_xtuple_0 (k1_funct_1 \\ (k11_qc_lang1 X0 X1) np_1) = np_3))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k9_qc_lang1 \\
& \quad X0)) \Rightarrow (((k1_xtuple_0\ (k1_funct_1\ (k11_qc_lang1\ X0\ X1)\ np_1) = \\
& \quad k6_numbers) \Rightarrow (X1 = k12_qc_lang1\ X0)) \wedge (((k1_xtuple_0\ (k1_funct_1 \\
& \quad (k11_qc_lang1\ X0\ X1)\ np_1) = np_1) \Rightarrow (v3_qc_lang1\ X1\ X0)) \wedge (((k1_xtuple_0 \\
& \quad (k1_funct_1\ (k11_qc_lang1\ X0\ X1)\ np_1) = np_2) \Rightarrow (v4_qc_lang1 \\
& \quad X1\ X0)) \wedge (((k1_xtuple_0\ (k1_funct_1\ (k11_qc_lang1\ X0\ X1)\ np_1) = \\
& \quad np_3) \Rightarrow (v5_qc_lang1\ X1\ X0)) \wedge ((\exists X2.(m1_subset_1\ X2\ k5_numbers) \wedge \\
& \quad (m2_subset_1\ (k1_funct_1\ (k11_qc_lang1\ X0\ X1)\ np_1)\ (k6_qc_lang1 \\
& \quad X0)\ (k8_qc_lang1\ X0\ X2))) \Rightarrow (v2_qc_lang1\ X1\ X0))))))
\end{aligned} \tag{4}$$

Assume the following.

$$v1_xboole_0\ np_0 \tag{5}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{6}$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0) \Rightarrow (m1_subset_1\ (k12_qc_lang1\ X0)\ (k9_qc_lang1\ X0)) \tag{7}$$

Assume the following.

$$k1_xboole_0 = the\ (\lambda X0 : \iota.v1_xboole_0\ X0) \tag{8}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_qc_lang1\ X0) \Rightarrow (((\neg v2_qc_lang1\ (k12_qc_lang1\ X0) \\
& \quad X0) \wedge ((\neg v3_qc_lang1\ (k12_qc_lang1\ X0)\ X0) \wedge ((\neg v4_qc_lang1\ (k12_qc_lang1 \\
& \quad X0)\ X0) \wedge ((\neg v5_qc_lang1\ (k12_qc_lang1\ X0)\ X0) \wedge (\forall X1.(m1_subset_1 \\
& \quad X1\ (k9_qc_lang1\ X0)) \Rightarrow ((\neg (v2_qc_lang1\ X1\ X0) \wedge (v3_qc_lang1\ X1\ X0)) \wedge \\
& \quad ((\neg (v2_qc_lang1\ X1\ X0) \wedge (v4_qc_lang1\ X1\ X0)) \wedge ((\neg (v2_qc_lang1 \\
& \quad X1\ X0) \wedge (v5_qc_lang1\ X1\ X0)) \wedge ((\neg (v3_qc_lang1\ X1\ X0) \wedge (v4_qc_lang1 \\
& \quad X1\ X0)) \wedge ((\neg (v3_qc_lang1\ X1\ X0) \wedge (v5_qc_lang1\ X1\ X0)) \wedge ((\neg (v4_qc_lang1 \\
& \quad X1\ X0) \wedge (v5_qc_lang1\ X1\ X0))))))))))
\end{aligned}$$