

t2_cqc_lang (TMcqwokwngjcsmdM- Fcp4whJRJbaQCVgD1Qj)

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Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k3_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k5_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. k16_funcop_1 X0 X1 = k1_tarski (k4_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski (k1_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k2_tarski X0 X1 = k2_xboole_0 (k1_tarski X0) (k1_tarski X1) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (6)$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0)\Rightarrow(\neg v1_xboole_0\ (k5_qc_lang1\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0)\Rightarrow(\neg v1_xboole_0\ (k3_qc_lang1\ X0)) \quad (8)$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0)\Rightarrow(\neg v1_xboole_0\ (k2_qc_lang1\ X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1\ (k16_funcop_1\ X0\ X1))\wedge(v1_funct_1\ (k16_funcop_1\ X0\ X1)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0\ X0)\wedge((\neg v1_xboole_0\ X1)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ X0))))\Rightarrow(\forall X2.(m2_subset_1\ X2\ X0\ X1)\Rightarrow(m1_subset_1\ X2\ X0)) \quad (11)$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0)\Rightarrow(m1_subset_1\ (k5_qc_lang1\ X0)\ (k1_zfmisc_1\ (k2_qc_lang1\ X0))) \quad (12)$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0)\Rightarrow(m1_subset_1\ (k3_qc_lang1\ X0)\ (k1_zfmisc_1\ (k2_qc_lang1\ X0))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski\ X0\ X1 = k2_tarski\ (k2_tarski\ X0\ X1)\ (k1_tarski\ X0) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_zfmisc_1\ X0\ X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow(\exists X4.\exists X5.(X4 \in X0)\wedge((X5 \in X1)\wedge(X3 = k4_tarski\ X4\ X5)))) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0\ X0\ X1 = k2_xboole_0\ X1\ X0 \quad (16)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0))\Rightarrow(v1_xboole_0\ X1)) \quad (17)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m2_subset_1\ X1\ (k2_qc_lang1 \\ & \quad X0)\ (k3_qc_lang1\ X0)) \Rightarrow (\forall X2.(m2_subset_1\ X2\ (k2_qc_lang1 \\ X0)\ (k5_qc_lang1\ X0)) \Rightarrow ((v1_funct_1\ (k16_funcop_1\ X2\ X1)) \wedge (m1_subset_1 \\ & \quad (k16_funcop_1\ X2\ X1)\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k5_qc_lang1\ X0) \\ & \quad \quad (k2_qc_lang1\ X0)))))) \end{aligned}$$