

t3_cqc_lang

(TMEyAcCS8mPEsCbkrhAQk3Kj2ynDkLegVtS)

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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 $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k2_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_cqc_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_cqc_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. k1_funct_1 (k16_funcop_1 X0 X1) X0 = X1 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (k9_xtuple_0 (k2_funcop_1 X0 X1) = X0) \wedge (r1_tarski (k10_xtuple_0 (k2_funcop_1 X0 X1)) (k1_tarski X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_qc_lang1 X0) \wedge ((m1_subset_1 X1 (k5_qc_lang1 X0)) \wedge (m1_subset_1 X2 (k3_qc_lang1 X0)))) \Rightarrow (k2_cqc_lang X0 X1 X2 = k16_funcop_1 X1 X2) \quad (5)$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0)\Rightarrow(\neg v1_xboole_0\ (k5_qc_lang1\ X0)) \quad (6)$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0)\Rightarrow(\neg v1_xboole_0\ (k3_qc_lang1\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0)\Rightarrow(\neg v1_xboole_0\ (k2_qc_lang1\ X0)) \quad (8)$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0)\Rightarrow(m1_subset_1\ (k5_qc_lang1\ X0)\ (k1_zfmisc_1\ (k2_qc_lang1\ X0))) \quad (9)$$

Assume the following.

$$\forall X0.(m1_qc_lang1\ X0)\Rightarrow(m1_subset_1\ (k3_qc_lang1\ X0)\ (k1_zfmisc_1\ (k2_qc_lang1\ X0))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1\ X0\ X1 = k7_funcop_1\ (k1_tarski\ X0)\ X1 \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarski\ X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow(X2 = X0)) \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1\ X0)\Rightarrow(\forall X1.(m2_finseq_1\ X1\ (k2_qc_lang1\ X0))\Rightarrow(\forall X2.((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k5_qc_lang1\ X0)\ (k2_qc_lang1\ X0))))))\Rightarrow(\forall X3. \\ (m2_finseq_1\ X3\ (k2_qc_lang1\ X0))\Rightarrow((X3 = k1_cqc_lang\ X0\ X1\ X2)\Leftrightarrow \\ ((k3_finseq_1\ X3 = k3_finseq_1\ X1)\wedge(\forall X4.(m1_subset_1\ X4\ k5_numbers)\Rightarrow(((r1_xxreal_0\ np_1\ X4)\wedge(r1_xxreal_0\ X4\ (k3_finseq_1\ X1)))\Rightarrow(((k1_funct_1\ X1\ X4 \in k9_xtuple_0\ X2)\Rightarrow(k1_funct_1\ X3\ X4 = \\ k1_funct_1\ X2\ (k1_funct_1\ X1\ X4))\wedge((\neg k1_funct_1\ X1\ X4 \in k9_xtuple_0\ X2)\Rightarrow(k1_funct_1\ X3\ X4 = k1_funct_1\ X1\ X4)))))))))) \end{aligned} \quad (13)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ k5_numbers) \Rightarrow \\ & (\forall X2.((v1_funct_1\ X2) \wedge (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & (k5_qc_lang1\ X0)\ (k2_qc_lang1\ X0)))))) \Rightarrow (\forall X3.(m2_subset_1 \\ & X3\ (k2_qc_lang1\ X0)\ (k3_qc_lang1\ X0)) \Rightarrow (\forall X4.(m2_subset_1 \\ & X4\ (k2_qc_lang1\ X0)\ (k5_qc_lang1\ X0)) \Rightarrow (\forall X5.(m2_finseq_1 \\ & X5\ (k2_qc_lang1\ X0)) \Rightarrow (\forall X6.(m2_finseq_1\ X6\ (k2_qc_lang1 \\ & X0)) \Rightarrow (((X2 = k2_cqc_lang\ X0\ X4\ X3) \wedge ((X6 = k1_cqc_lang\ X0\ X5\ X2) \wedge \\ & (r1_xxreal_0\ np_1\ X1) \wedge (r1_xxreal_0\ X1\ (k3_finseq_1\ X5)))))) \Rightarrow \\ & (((k1_funct_1\ X5\ X1 = X4) \Rightarrow (k1_funct_1\ X6\ X1 = X3)) \wedge ((k1_funct_1 \\ & X5\ X1 \neq X4) \Rightarrow (k1_funct_1\ X6\ X1 = k1_funct_1\ X5\ X1)))))) \end{aligned}$$