

t22_cqc_the3
(TMazKjAa5CFrEMtim6Hf9qyCjWEp7C8ugmf)

October 27, 2020

Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_cqc_lang : \iota \Rightarrow \iota$ be given. Let $k1_cqc_the1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (k3_cqc_lang X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (k3_cqc_lang X0))) \Rightarrow ((r1_tarski X1 (k1_cqc_the1 X0 X2)) \Rightarrow (r1_tarski \\ (k1_cqc_the1 X0 X1) (k1_cqc_the1 X0 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (k3_cqc_lang X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (k3_cqc_lang X0))) \Rightarrow (r1_tarski (k4_subset_1 (k3_cqc_lang X0) \\ (k1_cqc_the1 X0 X1) (k1_cqc_the1 X0 X2)) (k1_cqc_the1 X0 (k4_subset_1 \\ (k3_cqc_lang X0) X1 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (k3_cqc_lang X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (k3_cqc_lang X0))) \Rightarrow ((r1_tarski X1 X2) \Rightarrow (r1_tarski (k1_cqc_the1 \\ X0 X1) (k1_cqc_the1 X0 X2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (k3_cqc_lang X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (k3_cqc_lang X0))) \Rightarrow (r1_tarski (k4_subset_1 (k3_cqc_lang X0) \\ X1 X2) (k4_subset_1 (k3_cqc_lang X0) (k1_cqc_the1 X0 X1) (k1_cqc_the1 \\ X0 X2)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 X0))\wedge(m1_subset_1 X2 (k1_zfmisc_1 X0)))\Rightarrow(m1_subset_1 (k4_subset_1 X0 X1 X2) (k1_zfmisc_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1_qc_lang1 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k3_cqc_lang X0))))\Rightarrow(m1_subset_1 (k1_cqc_the1 X0 X1) (k1_zfmisc_1 (k3_cqc_lang X0))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1_tarski X0 X1)\wedge(r1_tarski X1 X0)) \quad (7)$$

Theorem 1

$$\forall X0.(m1_qc_lang1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_cqc_lang X0)))\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k3_cqc_lang X0)))\Rightarrow(k1_cqc_the1 X0 (k4_subset_1 (k3_cqc_lang X0) X1 X2) = k1_cqc_the1 X0 (k4_subset_1 (k3_cqc_lang X0) (k1_cqc_the1 X0 X1) (k1_cqc_the1 X0 X2))))))$$