

t16_cqc_the1
(TMPEtttofhJxE1G1irJ5aSyVaCR6apvj93vd)

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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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_cqc_lang : \iota \Rightarrow \iota$ be given. Let $v1_cqc_the1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_cqc_the1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_qc_lang1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (2)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\neg v1_xboole_0 (k3_cqc_lang X0)) \quad (3)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (m1_subset_1 (k3_cqc_lang X0) (k1_zfmisc_1 (k9_qc_lang1 X0))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_qc_lang1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k3_cqc_lang X0)))) \Rightarrow (m1_subset_1 (k1_cqc_the1 X0 X1) (k1_zfmisc_1 (k3_cqc_lang X0))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (6)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\
& \quad (k3_cqc_lang\ X0))) \Rightarrow (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1 \\
& \quad (k3_cqc_lang\ X0))) \Rightarrow ((X2 = k1_cqc_the1\ X0\ X1) \Leftrightarrow (\forall X3.(m2_subset_1 \\
& \quad X3\ (k9_qc_lang1\ X0)\ (k3_cqc_lang\ X0)) \Rightarrow ((X3 \in X2) \Leftrightarrow (\forall X4.(\\
& \quad m1_subset_1\ X4\ (k1_zfmisc_1\ (k3_cqc_lang\ X0)) \Rightarrow (((v1_cqc_the1 \\
& \quad X4\ X0) \wedge (r1_tarski\ X1\ X4)) \Rightarrow (X3 \in X4)))))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (v1_xboole_0\ X1)) \tag{8}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\
& \quad (k3_cqc_lang\ X0))) \Rightarrow (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1 \\
& \quad (k3_cqc_lang\ X0))) \Rightarrow (((v1_cqc_the1\ X1\ X0) \wedge (r1_tarski\ X2\ X1)) \Rightarrow \\
& \quad (r1_tarski\ (k1_cqc_the1\ X0\ X2)\ X1)))
\end{aligned}$$