

l10_cqc_the2 (TMHYkyDNwiy- WXs9QXeehuDpFzfudHjF9TVD)

October 27, 2020

Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k3_cqc_lang : \iota \Rightarrow \iota$ be given. Let $v2_cqc_the1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_cqc_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_cqc_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_cqc_the1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\forall X1. (m2_subset_1 X1 (k9_qc_lang1 X0) (k3_cqc_lang X0)) \Rightarrow (\forall X2. (m2_subset_1 X2 (k9_qc_lang1 X0) (k3_cqc_lang X0)) \Rightarrow (k8_cqc_lang X0 X1 (k9_cqc_lang X0 X2 X1) \in k4_cqc_the1 X0))) \quad (2)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\forall X1. (m2_subset_1 X1 (k9_qc_lang1 X0) (k3_cqc_lang X0)) \Rightarrow (\forall X2. (m2_subset_1 X2 (k9_qc_lang1 X0) (k3_cqc_lang X0)) \Rightarrow (k8_cqc_lang X0 X1 (k9_cqc_lang X0 X1 X2) \in k4_cqc_the1 X0))) \quad (3)$$

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.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\neg v1_xboole_0 (k3_cqc_lang X0)) \quad (5)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (m1_subset_1 (k4_cqc_the1 X0) (k1_zfmisc_1 (k3_cqc_lang X0))) \quad (6)$$

Assume the following.

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (m1_subset_1 (k3_cqc_lang X0) (k1_zfmisc_1 (k9_qc_lang1 X0))) \quad (7)$$

Assume the following.

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k9_qc_lang1 X0)) \Rightarrow ((v2_cqc_the1 X1 X0) \Leftrightarrow (X1 \in k4_cqc_the1 X0))) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m2_subset_1 X1 (k9_qc_lang1 \\ X0) (k3_cqc_lang X0)) \Rightarrow (\forall X2.(m2_subset_1 X2 (k9_qc_lang1 \\ X0) (k3_cqc_lang X0)) \Rightarrow ((v2_cqc_the1 (k8_cqc_lang X0 X1 (k9_cqc_lang \\ X0 X1 X2)) X0) \wedge (v2_cqc_the1 (k8_cqc_lang X0 X1 (k9_cqc_lang X0 X2 \\ X1)) X0)))) \end{aligned}$$