

t49_cqc_the1
(TMXcjeDjy7gxPKJP7sja5539kSSBuYjzV1E)

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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 $k9_qc_lang1 : \iota \Rightarrow \iota$ 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 $k13_cqc_lang : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_cqc_lang : \iota \Rightarrow \iota$ be given. Let $k4_cqc_the1 : \iota \Rightarrow \iota$ be given. Let $k24_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_cqc_the1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_subset_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (k3_cqc_lang X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k9_qc_lang1 \\ X0)) \Rightarrow (\forall X3.(m2_subset_1 X3 (k2_qc_lang1 X0) (k3_qc_lang1 \\ X0)) \Rightarrow (\forall X4.(m2_subset_1 X4 (k2_qc_lang1 X0) (k3_qc_lang1 \\ X0)) \Rightarrow (((k13_cqc_lang X0 X2 X3 \in k3_cqc_lang X0) \wedge ((k13_cqc_lang \\ X0 X2 X4 \in k3_cqc_lang X0) \wedge (k13_cqc_lang X0 X2 X3 \in k1_cqc_the1 X0 \\ X1))) \Rightarrow ((X3 \in k24_qc_lang1 X0 X2) \vee (k13_cqc_lang X0 X2 X4 \in k1_cqc_the1 \\ X0 X1)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.m1_subset_1 (k1_subset_1 X0) (k1_zfmisc_1 X0) \tag{2}$$

Assume the following.

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (k4_cqc_the1 X0 = k1_cqc_the1 X0 (k1_subset_1 (k3_cqc_lang X0))) \tag{3}$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k9_qc_lang1 \\ X0)) \Rightarrow (\forall X2.(m2_subset_1 X2 (k2_qc_lang1 X0) (k3_qc_lang1 \\ X0)) \Rightarrow (\forall X3.(m2_subset_1 X3 (k2_qc_lang1 X0) (k3_qc_lang1 \\ X0)) \Rightarrow (((k13_cqc_lang X0 X1 X2 \in k3_cqc_lang X0) \wedge ((k13_cqc_lang \\ X0 X1 X3 \in k3_cqc_lang X0) \wedge (k13_cqc_lang X0 X1 X2 \in k4_cqc_the1 X0))) \Rightarrow \\ ((X2 \in k24_qc_lang1 X0 X1) \vee (k13_cqc_lang X0 X1 X3 \in k4_cqc_the1 X0)))))) \end{aligned}$$