

t4_cqc_lang (TMHMMK- fupd1YWRfB31Hzu6q8XnoAVkgVEBu)

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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 $k3_cqc_lang : \iota \Rightarrow \iota$ be given. Let $k6_qc_lang3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k5_qc_lang3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (2)$$

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.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\neg v1_xboole_0 (k3_cqc_lang X0)) \quad (4)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\neg v1_xboole_0 (k9_qc_lang1 X0)) \quad (5)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (m1_subset_1 (k3_cqc_lang X0) (k1_zfmisc_1 (k9_qc_lang1 X0))) \quad (6)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (k3_cqc_lang X0 = \text{ReplSep } (\text{toset } (\lambda X1 : \iota. m1_subset_1 X1 (k9_qc_lang1 X0))) (\lambda X1 : \iota. (k6_qc_lang3 X0 X1 = k1_xboole_0) \wedge (k5_qc_lang3 X0 X1 = k1_xboole_0)) (\lambda X1 : \iota. X1))) \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k9_qc_lang1 \\ X0)) \Rightarrow ((m2_subset_1\ X1\ (k9_qc_lang1\ X0)\ (k3_cqc_lang\ X0)) \Leftrightarrow ((k6_qc_lang3 \\ X0\ X1 = k1_xboole_0) \wedge (k5_qc_lang3\ X0\ X1 = k1_xboole_0)))) \end{aligned}$$