

t40_qc_lang3
(TMG7wEo1ASpUFVRjHkMjHE4zRH33pCadont)

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Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k4_qc_lang3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_qc_lang2 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v3_qc_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k18_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k9_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $v2_qc_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_qc_lang3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_qc_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k20_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_qc_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k22_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow ((v3_qc_lang1 (k1_qc_lang2 X0) X0) \wedge (k18_qc_lang1 X0 (k1_qc_lang2 X0) = k12_qc_lang1 X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 (k2_qc_lang1 X0)))) \Rightarrow ((k4_qc_lang3 \\ X0 X1 (k12_qc_lang1 X0) = k1_xboole_0) \wedge ((\forall X2.(m1_subset_1 \\ X2 (k9_qc_lang1 X0)) \Rightarrow ((v2_qc_lang1 X2 X0) \Rightarrow (k4_qc_lang3 X0 X1 X2 = \\ k1_qc_lang3 X0 (k17_qc_lang1 X0 X2) X1))) \wedge ((\forall X2.(m1_subset_1 \\ X2 (k9_qc_lang1 X0)) \Rightarrow ((v3_qc_lang1 X2 X0) \Rightarrow (k4_qc_lang3 X0 X1 X2 = \\ k4_qc_lang3 X0 X1 (k18_qc_lang1 X0 X2)))) \wedge ((\forall X2.(m1_subset_1 \\ X2 (k9_qc_lang1 X0)) \Rightarrow ((v4_qc_lang1 X2 X0) \Rightarrow (k4_qc_lang3 X0 X1 X2 = \\ k4_subset_1 X1 (k4_qc_lang3 X0 X1 (k19_qc_lang1 X0 X2)) (k4_qc_lang3 \\ X0 X1 (k20_qc_lang1 X0 X2)))))) \wedge (\forall X2.(m1_subset_1 X2 (k9_qc_lang1 \\ X0)) \Rightarrow ((v5_qc_lang1 X2 X0) \Rightarrow (k4_qc_lang3 X0 X1 X2 = k4_qc_lang3 X0 \\ X1 (k22_qc_lang1 X0 X2)))))))))) \quad (2) \end{aligned}$$

Assume the following.

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (m1_subset_1 (k1_qc_lang2 X0) (k9_qc_lang1 X0)) \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.((\neg v1_xboole_0\ X1) \wedge \\ (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_qc_lang1\ X0)))) \Rightarrow (k4_qc_lang3 \\ X0\ X1\ (k1_qc_lang2\ X0) = k1_xboole_0)) \end{aligned}$$