

t2_qc_lang2 (TMNsJLERGZVxzzbMwhqRV- SuQShxF5oj7FPL)

October 27, 2020

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 $k14_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_qc_lang1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k20_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_qc_lang1 X0) \wedge ((m1_subset_1 X1 (k9_qc_lang1 X0)) \wedge (m1_subset_1 X2 (k9_qc_lang1 X0)))) \Rightarrow (m1_subset_1 (k14_qc_lang1 X0 X1 X2) (k9_qc_lang1 X0)) \quad (1)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k9_qc_lang1 X0)) \Rightarrow ((v4_qc_lang1 X1 X0) \Rightarrow (\forall X2. (m1_subset_1 X2 (k9_qc_lang1 X0)) \Rightarrow ((X2 = k20_qc_lang1 X0 X1) \Leftrightarrow (\exists X3. (m1_subset_1 X3 (k9_qc_lang1 X0)) \wedge (X1 = k14_qc_lang1 X0 X3 X2)))))) \quad (2)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k9_qc_lang1 X0)) \Rightarrow ((v4_qc_lang1 X1 X0) \Rightarrow (\forall X2. (m1_subset_1 X2 (k9_qc_lang1 X0)) \Rightarrow ((X2 = k19_qc_lang1 X0 X1) \Leftrightarrow (\exists X3. (m1_subset_1 X3 (k9_qc_lang1 X0)) \wedge (X1 = k14_qc_lang1 X0 X2 X3)))))) \quad (3)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k9_qc_lang1 X0)) \Rightarrow ((v4_qc_lang1 X1 X0) \Leftrightarrow (\exists X2. (m1_subset_1 X2 (k9_qc_lang1 X0)) \wedge (\exists X3. (m1_subset_1 X3 (k9_qc_lang1 X0)) \wedge (X1 = k14_qc_lang1 X0 X2 X3)))))) \quad (4)$$

Theorem 1

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k9_qc_lang1 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (k9_qc_lang1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k9_qc_lang1 X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (k9_qc_lang1 X0)) \Rightarrow ((k14_qc_lang1 X0 X1 X2 = k14_qc_lang1 X0 X3 X4) \Rightarrow ((X1 = X3) \wedge (X2 = X4))))))))$$