

t25_qc_lang1 (TMMSEQ- fyEQ1SYdvt3SeMvZUFEQhNGJTRfcD)

October 27, 2020

Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $r2_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_qc_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_qc_lang1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_qc_lang1 X0)) \Rightarrow ((r1_qc_lang1 X0 X1 X2) \vee (r1_qc_lang1 X0 X2 X1)))) \quad (1)$$

Assume the following.

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_qc_lang1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_qc_lang1 X0)) \Rightarrow (((r1_qc_lang1 X0 X1 X2) \wedge (r1_qc_lang1 X0 X2 X1)) \Rightarrow (X2 = X1)))) \quad (2)$$

Assume the following.

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_qc_lang1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_qc_lang1 X0)) \Rightarrow ((r2_qc_lang1 X0 X1 X2) \Leftrightarrow ((r1_qc_lang1 X0 X1 X2) \wedge (X1 \neq X2)))) \quad (3)$$

Theorem 1

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_qc_lang1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_qc_lang1 X0)) \Rightarrow ((r2_qc_lang1 X0 X1 X2) \Leftrightarrow (\neg r1_qc_lang1 X0 X2 X1))))$$