

t46_cqc_sim1
(TMdxmML72PgT5dZvURK9kCEG3cdsMBx6tyh)

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Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k3_cqc_lang : \iota \Rightarrow \iota$ be given. Let $r2_cqc_sim1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k14_cqc_sim1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m2_subset_1 X1 (k9_qc_lang1 \\ X0) (k3_cqc_lang X0)) \Rightarrow (\forall X2.(m2_subset_1 X2 (k9_qc_lang1 \\ X0) (k3_cqc_lang X0)) \Rightarrow ((r2_cqc_sim1 X0 X1 X2) \Leftrightarrow (k14_cqc_sim1 X0 \\ X1 = k14_cqc_sim1 X0 X2)))) \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m2_subset_1 X1 (k9_qc_lang1 \\ X0) (k3_cqc_lang X0)) \Rightarrow (\forall X2.(m2_subset_1 X2 (k9_qc_lang1 \\ X0) (k3_cqc_lang X0)) \Rightarrow (\forall X3.(m2_subset_1 X3 (k9_qc_lang1 \\ X0) (k3_cqc_lang X0)) \Rightarrow (((r2_cqc_sim1 X0 X1 X2) \wedge (r2_cqc_sim1 X0 \\ X2 X3)) \Rightarrow (r2_cqc_sim1 X0 X1 X3)))))) \end{aligned}$$