

t29_qc_lang4
(TMWjcDJAZ38nAokU64jzY5Pp6YULc2q2NSx)

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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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_trees_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_qc_lang4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k3_qc_lang4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k9_qc_lang1 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k9_qc_lang1 X0)) \Rightarrow (\forall X3. \\ (m1_subset_1 X3 (k9_qc_lang1 X0)) \Rightarrow (\forall X4.(m1_trees_1 X4 \\ (k9_xtuple_0 (k2_qc_lang4 X0 X1))) \Rightarrow (\forall X5.(m1_trees_1 X5 \\ (k9_xtuple_0 (k2_qc_lang4 X0 X2)))) \Rightarrow (((X4 \in k3_qc_lang4 X0 X1 X2) \wedge \\ (X5 \in k3_qc_lang4 X0 X2 X3)) \Rightarrow (k8_finseq_1 k5_numbers X4 X5 \in k3_qc_lang4 \\ X0 X1 X3))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{2}$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k9_qc_lang1 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k9_qc_lang1 X0)) \Rightarrow (\forall X3. \\ (m1_subset_1 X3 (k9_qc_lang1 X0)) \Rightarrow (r1_tarski (ReplSep2 (toset \\ (\lambda X4 : \iota.m1_trees_1 X4 (k9_xtuple_0 (k2_qc_lang4 X0 X1)))) \\ (\lambda X4 : \iota.toset (\lambda X5 : \iota.m1_trees_1 X5 (k9_xtuple_0 (k2_qc_lang4 \\ X0 X2)))) (\lambda X4 : \iota.\lambda X5 : \iota.(X4 \in k3_qc_lang4 X0 X1 X2) \wedge (\\ X5 \in k3_qc_lang4 X0 X2 X3)) (\lambda X4 : \iota.\lambda X5 : \iota.k8_finseq_1 \\ k5_numbers X4 X5)) (k3_qc_lang4 X0 X1 X3))))))))) \end{aligned}$$