

t27_sublemma
(TMNhe3gBzBfh13v8tQ4c5k5kQjRn7AX1aRn)

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Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $v1_sublemma : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_subst1 : \iota \Rightarrow \iota$ be given. Let $k3_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $m1_subst1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_subst1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_subst1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_sublemma : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k24_subst1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k2_zfmisc_1 \\ (k16_subst1 X0) (k3_qc_lang1 X0))) \Rightarrow (\forall X2.(m1_subst1 \\ X2 X0 X1) \Rightarrow ((v3_subst1 X1 X0) \Rightarrow (v7_subst1 (k24_subst1 X0 X1 \\ X2) X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.((v1_sublemma X1 X0) \wedge \\ (m1_subset_1 X1 (k2_zfmisc_1 (k16_subst1 X0) (k3_qc_lang1 X0)))) \Rightarrow \\ (\forall X2.(m1_subst1 X2 X0 X1) \Rightarrow ((v3_subst1 X1 X0) \Rightarrow (k9_sublemma \\ X0 X1 X2 = k24_subst1 X0 X1 X2)))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.((v1_sublemma X1 X0) \wedge \\ (m1_subset_1 X1 (k2_zfmisc_1 (k16_subst1 X0) (k3_qc_lang1 X0)))) \Rightarrow \\ (\forall X2.(m1_subst1 X2 X0 X1) \Rightarrow ((v3_subst1 X1 X0) \Rightarrow (v7_subst1 \\ (k9_sublemma X0 X1 X2) X0)))) \end{aligned}$$