

t91_mcart_1
(TMW2VQH1dEqZbfvVfop87n6npzEtY9VkgfL)

October 27, 2020

Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(v1_relat_1 \\ X4) \Rightarrow & ((X4 = k2_tarski (k4_tarski X0 X1) (k4_tarski X2 X3)) \Rightarrow ((k9_xtuple_0 \\ & X4 = k2_tarski X0 X2) \wedge (k10_xtuple_0 X4 = k2_tarski X1 X3))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.v1_relat_1 (k2_tarski \\ & (k4_tarski X0 X1) (k4_tarski X2 X3)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.k3_xtuple_0 X0 X1 X2 = k4_tarski \\ & (k4_tarski X0 X1) X2 \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ k9_xtuple_0 (k9_xtuple_0 (k2_tarski (k3_xtuple_0 X0 X1 X2) (k3_xtuple_0 \\ & X3 X4 X5))) = k2_tarski X0 X3 \end{aligned}$$