

l46_funct_1 (TMTcnKdRHuXYwx- PeB1xjL5o59PLeeb1QUyJ)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (\forall X2. (v1_relat_1 \\ & X2) \Rightarrow (\forall X3. (v1_relat_1 X3) \Rightarrow (((r1_tarski (k10_xtuple_0 \\ & X1) X0) \wedge ((k3_relat_1 X1 X2 = k4_relat_1 (k9_xtuple_0 X3)) \wedge (k3_relat_1 \\ & X2 X3 = k4_relat_1 X0))) \Rightarrow (X3 = X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski X0 X0 \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \\ & ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow (\forall X3. ((v1_relat_1 \\ & X3) \wedge (v1_funct_1 X3)) \Rightarrow (((k10_xtuple_0 X1 = X0) \wedge ((k3_relat_1 X1 \\ & X2 = k4_relat_1 (k9_xtuple_0 X3)) \wedge (k3_relat_1 X2 X3 = k4_relat_1 \\ & X0))) \Rightarrow (X3 = X1)))))) \end{aligned}$$