

t9_grfunc_1 (TMX- cUgxzG3G8SEAcUFtr8J79RrHPBdXXznc)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 \\ & X2)) \Rightarrow ((k4_tarski X0 X1 \in X2) \Leftrightarrow ((X0 \in k9_xtuple_0 X2) \wedge (X1 = k1_funct_1 \\ & X2 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v2_funct_1 X0) \Leftrightarrow \\ & (\forall X1. \forall X2. ((X1 \in k9_xtuple_0 X0) \wedge ((X2 \in k9_xtuple_0 \\ & X0) \wedge (k1_funct_1 X0 X1 = k1_funct_1 X0 X2))) \Rightarrow (X1 = X2))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v2_funct_1 X0) \Leftrightarrow \\ & (\forall X1. \forall X2. \forall X3. ((k4_tarski X1 X3 \in X0) \wedge (k4_tarski \\ & X2 X3 \in X0)) \Rightarrow (X1 = X2))) \end{aligned}$$