t29_grfunc_1 (TMctgpoDYhMXvrARkjmZ7P8umHjq62P4d86)

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Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow (\forall X2.((k9\_xtuple\_0\ X0 = k9\_xtuple\_0\ X1) \wedge (\forall X3.(X3 \in X2) \Rightarrow (k1\_funct\_1\ X0\ X3 = k1\_funct\_1\ X1\ X3))) \Rightarrow (k5\_relat\_1\ X0\ X2 = k5\_relat\_1\ X1\ X2))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1\_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \tag{2}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow (\forall X2.((k9\_xtuple\_0\ X0 = k9\_xtuple\_0\ X1) \wedge (k1\_funct\_1\ X0\ X2 = k1\_funct\_1\ X1\ X2)) \Rightarrow (k5\_relat\_1\ X0\ (k1\_tarski\ X2) = k5\_relat\_1\ X1\ (k1\_tarski\ X2))))$$