

t31_grfunc_1
(TMEy2kAb48rNXD8E8V3ssx96jvkHyMJPdJ8)

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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 $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. k1_enumset1 X0 X1 X2 = k2_xboole_0 (k2_tarski X0 X1) (k1_tarski X2) \quad (1)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \forall X3. ((k9_xtuple_0 X0 = k9_xtuple_0 X1) \wedge ((k1_funct_1 X0 X2 = k1_funct_1 X1 X2) \wedge (k1_funct_1 X0 X3 = k1_funct_1 X1 X3))) \Rightarrow (k5_relat_1 X0 (k2_tarski X2 X3) = k5_relat_1 X1 (k2_tarski X2 X3)))) \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. ((k9_xtuple_0 X0 = k9_xtuple_0 X1) \wedge (k1_funct_1 X0 X2 = k1_funct_1 X1 X2)) \Rightarrow (k5_relat_1 X0 (k1_tarski X2) = k5_relat_1 X1 (k1_tarski X2)))) \quad (3)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (v1_relat_1 X1) \Rightarrow (\forall X2. \forall X3. ((k5_relat_1 X0 X2 = k5_relat_1 X1 X2) \wedge (k5_relat_1 X0 X3 = k5_relat_1 X1 X3)) \Rightarrow (k5_relat_1 X0 (k2_xboole_0 X2 X3) = k5_relat_1 X1 (k2_xboole_0 X2 X3)))) \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((\\ v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \forall X3. \forall X4. \\ ((k9_xtuple_0 X0 = k9_xtuple_0 X1) \wedge ((k1_funct_1 X0 X2 = k1_funct_1 \\ X1 X2) \wedge ((k1_funct_1 X0 X3 = k1_funct_1 X1 X3) \wedge (k1_funct_1 X0 X4 = \\ k1_funct_1 X1 X4)))) \Rightarrow (k5_relat_1 X0 (k1_enumset1 X2 X3 X4) = k5_relat_1 \\ X1 (k1_enumset1 X2 X3 X4)))) \end{aligned}$$