

t17_sysrel
(TMHPPuFrkiHLxfY3zhh2zuSmzMjygt96Cys)

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

$$\forall X0.(k9_xtuple_0 (k4_relat_1 X0) = X0) \wedge (k10_xtuple_0 (k4_relat_1 X0) = X0) \quad (1)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (((k9_xtuple_0 X0 = k9_xtuple_0 X1) \wedge (r1_tarski X0 X1)) \Rightarrow (X0 = X1))) \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(r1_tarski X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge (v1_funct_1 X1))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_relat_1 (k4_relat_1 X0)) \wedge (v1_funct_1 (k4_relat_1 X0)) \quad (4)$$

Theorem 1

$$\forall X0.(v1_relat_1 X0) \Rightarrow ((r1_tarski X0 (k4_relat_1 (k9_xtuple_0 X0))) \Rightarrow (X0 = k4_relat_1 (k9_xtuple_0 X0)))$$