

t31_afinsq_1

(TMHs4f1duWCJjp9eEAWSX1MM9SoSECWxFmR)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k1_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 \\ X0) \wedge (v1_finset_1 X0)))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v5_ordinal1 \\ X1) \wedge ((v1_funct_1 X1) \wedge (v1_finset_1 X1)))) \Rightarrow (r1_tarski (k10_xtuple_0 \\ X0) (k10_xtuple_0 (k1_ordinal4 X1 X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 \\ X0) \wedge (v1_finset_1 X0)))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v5_ordinal1 \\ X1) \wedge ((v1_funct_1 X1) \wedge (v1_finset_1 X1)))) \Rightarrow (r1_tarski (k10_xtuple_0 \\ X0) (k10_xtuple_0 (k1_ordinal4 X0 X1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow ((v5_relat_1 X1 X0) \Leftrightarrow (r1_tarski (k10_xtuple_0 X1) X0)) \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1 X0)\wedge((v5_ordinal1 X0)\wedge((v1_funct_1 \\ & X0)\wedge(v1_finset_1 X0))))\Rightarrow(\forall X1.((v1_relat_1 X1)\wedge((v5_ordinal1 \\ & X1)\wedge((v1_funct_1 X1)\wedge(v1_finset_1 X1))))\Rightarrow(\forall X2.((v1_relat_1 \\ & (k1_ordinal4 X0 X1))\wedge((v5_relat_1 (k1_ordinal4 X0 X1) X2)\wedge((v5_ordinal1 \\ & (k1_ordinal4 X0 X1))\wedge((v1_funct_1 (k1_ordinal4 X0 X1))\wedge(v1_finset_1 \\ & (k1_ordinal4 X0 X1))))))\Rightarrow(((v1_relat_1 X0)\wedge((v5_relat_1 X0 X2)\wedge \\ & ((v5_ordinal1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finset_1 X0))))))\wedge((\\ & v1_relat_1 X1)\wedge((v5_relat_1 X1 X2)\wedge((v5_ordinal1 X1)\wedge((v1_funct_1 \\ & X1)\wedge(v1_finset_1 X1))))))))) \end{aligned}$$