

t6_ordinal6
(TMKiw7K4dF1bLB96JhtETVeGutag2qPwubr)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $r3_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_wellord2 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_relat_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.v1_relat_1 (k1_wellord2 X0) \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(v1_relat_1 X1) \Rightarrow (\forall X2. \\ & ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((r3_wellord1 X0 X1 X2) \Leftrightarrow ((\\ & k9_xtuple_0 X2 = k1_relat_1 X0) \wedge ((k10_xtuple_0 X2 = k1_relat_1 \\ & X1) \wedge ((v2_funct_1 X2) \wedge (\forall X3.\forall X4.(k4_tarski X3 X4 \in \\ & X0) \Leftrightarrow ((X3 \in k1_relat_1 X0) \wedge ((X4 \in k1_relat_1 X0) \wedge (k4_tarski (k1_funct_1 \\ & X2 X3) (k1_funct_1 X2 X4) \in X1)))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(X1 = \\ & k10_xtuple_0 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9_xtuple_0 \\ & X0) \wedge (X2 = k1_funct_1 X0 X3)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow ((X1 = k1_wellord2 X0) \Leftrightarrow \\ & ((k1_relat_1 X1 = X0) \wedge (\forall X2.\forall X3.((X2 \in X0) \wedge (X3 \in X0)) \Rightarrow \\ & ((k4_tarski X2 X3 \in X1) \Leftrightarrow (r1_tarski X2 X3)))) \end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v1_relat_1 X2) \wedge (v1_funct_1 \\ & X2)) \Rightarrow ((r3_wellord1 (k1_wellord2 X0) (k1_wellord2 X1) X2) \Rightarrow (\forall X3. \\ & \forall X4.((X3 \in X0) \wedge (X4 \in X0)) \Rightarrow ((r1_tarski X3 X4) \Leftrightarrow (r1_tarski \\ & (k1_funct_1 X2 X3) (k1_funct_1 X2 X4)))))) \end{aligned}$$