

t34_wellord1
(TMa6Vie6oYUbQ5n9Nf84C7zE2jd9P2ZumTz)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_wellord1 : \iota \Rightarrow o$ be given. Let $k1_relat_1 : \iota \Rightarrow \iota$ be given. Let $k1_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow (((v2_wellord1 \\ & X2) \wedge ((X0 \in k1_relat_1 X2) \wedge (X1 \in k1_relat_1 X2))) \Rightarrow ((k4_tarski X0 \\ & X1 \in X2) \Leftrightarrow (r1_tarski (k1_wellord1 X2 X0) (k1_wellord1 X2 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((X0 \in k1_wellord1 \\ & X2 X1) \Leftrightarrow ((X0 \neq X1) \wedge (k4_tarski X0 X1 \in X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow \\ & (X2 \in X1)) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow (((v2_wellord1 \\ & X2) \wedge ((X0 \in k1_relat_1 X2) \wedge ((X1 \in k1_relat_1 X2) \wedge (\forall X3. (X3 \in \\ & k1_wellord1 X2 X0) \Rightarrow ((k4_tarski X3 X1 \in X2) \wedge (X3 \neq X1))))))) \Rightarrow (k4_tarski \\ & X0 X1 \in X2) \end{aligned}$$