

t50_wellord1

(TMcw7ZYDD73Rctx1cpVziBsChF8VZDnwXxs)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v2_wellord1 : \iota \Rightarrow o$ be given. Let $r3_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relat_1 : \iota \Rightarrow \iota$ be given. Let $r4_wellord1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (r1_tarski (k1_wellord1 X1 X0) (k1_relat_1 X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (v1_relat_1 X1) \Rightarrow (\forall X2. \\ & ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((r3_wellord1 X0 X1 X2) \Rightarrow (\forall X3. \\ & \neg (X3 \in k1_relat_1 X0) \wedge (\forall X4. \neg (X4 \in k1_relat_1 X1) \wedge (k7_relat_1 \\ & X2 (k1_wellord1 X0 X3) = k1_wellord1 X1 X4)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (\forall X2. (v1_relat_1 \\ & X2) \Rightarrow (\forall X3. ((v1_relat_1 X3) \wedge (v1_funct_1 X3)) \Rightarrow (((v2_wellord1 \\ & X1) \wedge ((r1_tarski X0 (k1_relat_1 X1)) \wedge (r3_wellord1 X1 X2 X3))) \Rightarrow \\ & ((r3_wellord1 (k2_wellord1 X1 X0) (k2_wellord1 X2 (k7_relat_1 \\ & X3 X0)) (k5_relat_1 X3 X0)) \wedge (r4_wellord1 (k2_wellord1 X1 X0) (k2_wellord1 \\ & X2 (k7_relat_1 X3 X0)))))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (v1_relat_1 X1) \Rightarrow (\forall X2. \\ & ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow (((v2_wellord1 X0) \wedge (r3_wellord1 \\ & X0 X1 X2)) \Rightarrow (\forall X3. \neg (X3 \in k1_relat_1 X0) \wedge (\forall X4. \neg (X4 \in \\ & k1_relat_1 X1) \wedge (r4_wellord1 (k2_wellord1 X0 (k1_wellord1 X0 X3)) \\ & (k2_wellord1 X1 (k1_wellord1 X1 X4)))))) \end{aligned}$$