

t49_orders_1
(TMVQfxLH2SyzVr3etYtcxXy4bghy51TZXdw)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $r4_orders_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_orders_1 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_wellord1 : \iota \Rightarrow o$ be given. Let $v1_orders_1 : \iota \Rightarrow o$ be given. Let $v2_orders_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. r1_tarski k1_xboole_0 X0 \quad (2)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (k2_wellord1 X0 k1_xboole_0 = k1_xboole_0) \quad (3)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (r4_orders_1 X0 X1) \Leftrightarrow (\\ \forall X2. \neg(r1_tarski X2 X1) \wedge ((v3_orders_1 (k2_wellord1 X0 X2)) \wedge \\ (\forall X3. \neg(X3 \in X1) \wedge (\forall X4. (X4 \in X2) \Rightarrow (k4_tarski X4 X3 \in X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (v1_relat_1 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1_xboole_0 X0) \wedge (v1_relat_1 X0)) \Rightarrow ((v1_relat_1 \\ X0) \wedge ((v2_wellord1 X0) \wedge ((v1_orders_1 X0) \wedge ((v2_orders_1 X0) \wedge \\ (v3_orders_1 X0)))))) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. \neg(r4_orders_1 X0 X1) \wedge \\ (X1 = k1_xboole_0)) \end{aligned}$$