

t10_wellord1
(TMVr3aQT49QqBKYg2GLAX2fLU6eYYCgANEE)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k2_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (k4_tarski X0 X1 \in k2_zfmisc_1 X2 X3) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X3)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (v1_relat_1 (k6_relat_1 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X0) \Rightarrow (v1_relat_1 (k5_relat_1 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X0) \Rightarrow (v1_relat_1 (k2_wellord1 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. k2_wellord1 X0 X1 = k3_xboole_0 X0 (k2_zfmisc_1 X1 X1)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k3_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \quad (6)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (v1_relat_1 X1) \Rightarrow ((X0 = X1) \Leftrightarrow (\forall X2. \forall X3. (k4_tarski X2 X3 \in X0) \Leftrightarrow (k4_tarski X2 X3 \in X1)))) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow (\forall X2.(v1_relat_1 \\ X2) \Rightarrow ((X2 = k6_relat_1 X0 X1) \Leftrightarrow (\forall X3.\forall X4.(k4_tarski \\ X3 X4 \in X2) \Leftrightarrow ((X4 \in X0) \wedge (k4_tarski X3 X4 \in X1)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.\forall X2.(v1_relat_1 \\ X2) \Rightarrow ((X2 = k5_relat_1 X0 X1) \Leftrightarrow (\forall X3.\forall X4.(k4_tarski \\ X3 X4 \in X2) \Leftrightarrow ((X3 \in X1) \wedge (k4_tarski X3 X4 \in X0)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k3_xboole_0 X0 X1 = k3_xboole_0 X1 X0 \quad (10)$$

Theorem 1

$$\begin{aligned} \forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow (k2_wellord1 X1 X0 = k5_relat_1 \\ (k6_relat_1 X0 X1) X0) \end{aligned}$$