

t31_wellord1
(TMXhG6BWmnaykdzSwfL6UkQDRPxCwvbWwqw)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_wellord1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relat_1 : \iota \Rightarrow \iota$ be given. Let $k2_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_2 : \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v4_relat_2 : \iota \Rightarrow o$ be given. Let $v6_relat_2 : \iota \Rightarrow o$ be given. Let $v8_relat_2 : \iota \Rightarrow o$ be given. Let $v1_wellord1 : \iota \Rightarrow o$ 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.

$$\forall X0.\forall X1.\forall X2.(v1_relat_1 X2) \Rightarrow ((k4_tarski X0 X1 \in X2) \Rightarrow ((X0 \in k1_relat_1 X2) \wedge (X1 \in k1_relat_1 X2))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow ((r1_tarski (k1_relat_1 (k2_wellord1 X1 X0)) (k1_relat_1 X1)) \wedge (r1_tarski (k1_relat_1 (k2_wellord1 X1 X0)) X0)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow ((v1_relat_2 X0) \Leftrightarrow (\forall X1.(X1 \in k1_relat_1 X0) \Rightarrow (k4_tarski X1 X1 \in X0))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.k3_xboole_0 X0 X0 = X0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 X0) \Rightarrow (v1_relat_1 (k3_xboole_0 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.k2_wellord1 X0 X1 = k3_xboole_0 X0 (k2_zfmisc_1 X1 X1)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k3_xboole_0 X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarski X0 X1 = k2_tarski X1 X0 \quad (12)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v2_wellord1 X0)) \Rightarrow ((v1_relat_1 X0) \wedge ((v1_relat_2 X0) \wedge ((v4_relat_2 X0) \wedge ((v6_relat_2 X0) \wedge ((v8_relat_2 X0) \wedge (v1_wellord1 X0)))))) \quad (13)$$

Theorem 1

$$\forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow (((v2_wellord1 X1) \wedge (r1_tarski X0 (k1_relat_1 X1))) \Rightarrow (k1_relat_1 (k2_wellord1 X1 X0) = X0))$$