

t5_classes2

(TMKa3VXejiNL36cWoyurPB4dH24FHV1BYpy)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_classes1 : \iota \Rightarrow o$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $v1_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_classes1 : \iota \Rightarrow o$ be given. Let $r2_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v2_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (r1_tarski (k1_ordinal1 X0) (k9_setfam_1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (2)$$

Assume the following.

$$\forall X0.(v1_ordinal1 X0) \Leftrightarrow (\forall X1.(X1 \in X0) \Rightarrow (r1_tarski X1 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(v2_classes1 X0) \Leftrightarrow ((v1_classes1 X0) \wedge ((\forall X1.(X1 \in X0) \Rightarrow (k9_setfam_1 X1 \in X0)) \wedge (\forall X1.\neg(r1_tarski X1 X0) \wedge (\neg r2_tarski X1 X0) \wedge (\neg X1 \in X0)))) \quad (4)$$

Assume the following.

$$\forall X0.k1_ordinal1 X0 = k2_xboole_0 X0 (k1_tarski X0) \quad (5)$$

Assume the following.

$$\forall X0.(v1_classes1 X0) \Leftrightarrow (\forall X1.\forall X2.((X1 \in X0) \wedge (r1_tarski X2 X1)) \Rightarrow (X2 \in X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow ((v1_ordinal1 X0) \wedge (v2_ordinal1 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(v2_classes1 X0) \Rightarrow (v1_classes1 X0) \quad (8)$$

Theorem 1

$$\forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.((v2_classes1\ X1) \wedge (X0 \in X1)) \Rightarrow ((k1_ordinal1\ X0 \in X1) \wedge (r1_tarski\ X0\ X1)))$$