

t14_classes1
(TMdGZNZGfq3YPHbxA1iCHJ9ko8NoZE1L3hx)

October 27, 2020

Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v4_ordinal1 : \iota \Rightarrow o$ be given. Let $k3_classes1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $k1_classes1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow ((v4_ordinal1 X0) \Leftrightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((X1 \in X0) \Rightarrow (k1_ordinal1 X1 \in X0)))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(v3_ordinal1 X2) \Rightarrow ((v4_ordinal1 X2) \Rightarrow ((X2 = k1_xboole_0) \vee ((X1 \in k3_classes1 X0 X2) \Leftrightarrow (\exists X3.(v3_ordinal1 X3) \wedge ((X3 \in X2) \wedge (X1 \in k3_classes1 X0 X3)))))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(v3_ordinal1 X2) \Rightarrow ((X0 \in k3_classes1 X1 (k1_ordinal1 X2)) \Leftrightarrow (\neg(\neg(r1_tarski X0 (k3_classes1 X1 X2)) \wedge (X0 \in k1_classes1 X1)) \wedge (\forall X3.\neg(X3 \in k3_classes1 X1 X2) \wedge (r1_tarski X0 X3) \vee (X0 = k9_setfam_1 X3)))) \quad (3)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow ((\neg v1_xboole_0 (k1_ordinal1 X0)) \wedge (v3_ordinal1 (k1_ordinal1 X0))) \quad (4)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.(v3_ordinal1 X3) \Rightarrow (((v4_ordinal1 X3) \wedge (X0 \in k3_classes1 X1 X3)) \Rightarrow ((X3 = k1_xboole_0) \vee (((\neg r1_tarski X2 X0) \wedge (X2 \neq k9_setfam_1 X0)) \vee (X2 \in k3_classes1 X1 X3))))$$