

t59_classes2

(TMa4LgC8Rjn5wdgU4J4KQuV6RSSJwyDDzmE)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_classes2 : \iota \Rightarrow o$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $k1_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k4_classes1 : \iota \Rightarrow \iota$ be given. Let $k2_ordinal1 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_classes1 : \iota \Rightarrow o$ be given. Let $v1_classes1 : \iota \Rightarrow o$ be given. Let $r2_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow (X0 = k4_classes1 (k2_ordinal1 X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (v3_ordinal1 X1) \Rightarrow ((X0 \in k4_classes1 X1) \Rightarrow (k3_tarski X0 \in k4_classes1 X1)) \quad (2)$$

Assume the following.

$$\forall X0. r1_tarski (k1_setfam_1 X0) (k3_tarski X0) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow (v3_ordinal1 (k2_ordinal1 X0)) \quad (4)$$

Assume the following.

$$\forall X0. (v2_classes1 X0) \Leftrightarrow ((v1_classes1 X0) \wedge ((\forall X1. (X1 \in X0) \Rightarrow (k9_setfam_1 X1 \in X0)) \wedge (\forall X1. \neg (r1_tarski X1 X0) \wedge ((\neg r2_tarski X1 X0) \wedge (\neg X1 \in X0))))) \quad (5)$$

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.

$$\forall X0. (v1_classes2 X0) \Rightarrow ((v1_ordinal1 X0) \wedge (v2_classes1 X0)) \quad (7)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X1) \wedge (v1_classes2 X1)) \Rightarrow \\ & ((X0 \in X1) \Rightarrow ((k9_setfam_1 X0 \in X1) \wedge ((k3_tarski X0 \in X1) \wedge (k1_setfam_1 \\ & \quad X0 \in X1)))) \end{aligned}$$