

t19_classes2

(TMHdTiw9SqyMNk5ie9R9WDX3oeY2uwZMyA)

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Let $v2_classes1 : \iota \Rightarrow o$ be given. Let $v4_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k2_ordinal1 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v2_classes1 X0) \Rightarrow (k2_ordinal1 X0 = k1_card_1 X0) \quad (1)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.((v2_classes1 X1) \wedge (X0 \in X1)) \Rightarrow ((k1_ordinal1 X0 \in X1) \wedge (r1_tarski X0 X1))) \quad (2)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow ((v4_ordinal1 X0) \Leftrightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((X1 \in X0) \Rightarrow (k1_ordinal1 X1 \in X0)))) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0.v1_card_1 (k1_card_1 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k2_ordinal1 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow ((X2 \in X0) \wedge (v3_ordinal1 X2))) \quad (6)$$

Assume the following.

$$\forall X0.(v1_card_1 X0) \Rightarrow (v3_ordinal1 X0) \quad (7)$$

Theorem 1 $\forall X0.(v2_classes1 X0) \Rightarrow (v4_ordinal1 (k1_card_1 X0))$.