

t57_ordinal6 (TMQKiWn- sJq9YdadC2KabMyXdmhciNc1Ka9J)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_classes2 : \iota \Rightarrow o$ be given. Let $v4_card_3 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v2_classes1 : \iota \Rightarrow o$ be given. Let $k2_ordinal1 : \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((r1_ordinal1 X0 X1) \Leftrightarrow (\neg X1 \in X0))) \quad (2)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (3)$$

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.

$$\forall X0.\forall X1.(X1 = k2_ordinal1 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow ((X2 \in X0) \wedge (v3_ordinal1 X2))) \quad (5)$$

Assume the following.

$$\forall X0.(v4_card_3 X0) \Leftrightarrow (r1_ordinal1 (k1_card_1 X0) k4_ordinal1) \quad (6)$$

Assume the following.

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

Theorem 1

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow ((\neg v4_card_3 X0) \Leftrightarrow (k4_ordinal1 \in X0))$$