

t8_arytm_3
(TMGhEbr8JgrSrasw7CtMQ4xKHdgNDQ8aRRs)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r2_arytm_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (r1_tarski X1 X0) \quad (1)$$

Assume the following.

$$\forall X0. (v3_ordinal1 X0) \Rightarrow (k11_ordinal2 X0 k1_xboole_0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$\forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow ((X0 \neq k1_xboole_0) \Rightarrow ((r1_ordinal1 X1 (k11_ordinal2 X1 X0)) \wedge (r1_ordinal1 X1 (k11_ordinal2 X0 X1)))))) \quad (3)$$

Assume the following.

$$\forall X0. (v3_ordinal1 X0) \Rightarrow (k11_ordinal2 k1_xboole_0 X0 = k1_xboole_0) \quad (4)$$

Assume the following.

$$\forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow (\neg(\neg X0 \in X1) \wedge ((X0 \neq X1) \wedge (\neg X1 \in X0)))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow ((r1_ordinal1 X0 X1) \Leftrightarrow (r1_tarski X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow ((r2_arytm_3 X0 X1) \Leftrightarrow (\exists X2. (v3_ordinal1 X2) \wedge (X1 = k11_ordinal2 X0 X2)))) \quad (7)$$

Assume the following.

$$k1_xboole_0 = the (\lambda X0 : \iota.v1_xboole_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (\neg X1 \in X0) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. \\ & ((v3_ordinal1 X1) \wedge (v7_ordinal1 X1)) \Rightarrow (((r2_arytm_3 X0 X1) \wedge (r2_arytm_3 \\ & X1 X0)) \Rightarrow (X0 = X1))) \end{aligned}$$