

t43_ordinal6 (TM- bLQA6G8yAdrZmyc8mkDiMz39vovGSx7Rz)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_classes2 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_ordinal1 : \iota \Rightarrow \iota$ be given. Let $v2_ordinal6 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $r1_abian : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v2_ordinal2 : \iota \Rightarrow o$ be given. Let $v3_ordinal2 : \iota \Rightarrow o$ be given. Let $k4_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_ordinal2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow (\forall X1. \\ & ((v3_ordinal1 X1) \wedge (m1_subset_1 X1 X0)) \Leftrightarrow (X1 \in k2_ordinal1 X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow (\forall X1. \\ & ((v3_ordinal1 X1) \wedge (m1_subset_1 X1 X0)) \Rightarrow (\forall X2.((v1_funct_1 \\ & X2) \wedge ((v1_funct_2 X2 (k2_ordinal1 X0) (k2_ordinal1 X0)) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_ordinal1 X0) (k2_ordinal1 X0)))))) \Rightarrow \\ & (X1 \in k9_xtuple_0 X2))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow (\forall X1. \\ & ((v3_ordinal1 X1) \wedge (m1_subset_1 X1 X0)) \Rightarrow (\forall X2.((v1_funct_1 \\ & X2) \wedge ((v1_funct_2 X2 (k2_ordinal1 X0) (k2_ordinal1 X0)) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_ordinal1 X0) (k2_ordinal1 X0)))))) \Rightarrow \\ & (\neg (k4_ordinal1 \in X0) \wedge ((v2_ordinal2 X2) \wedge ((v3_ordinal2 X2) \wedge (\forall X3. \\ & ((v3_ordinal1 X3) \wedge (m1_subset_1 X3 X0)) \Rightarrow (\neg (X1 \in X3) \wedge (k4_ordinal4 \\ & X0 X2 X3 = X3)))))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v1_xboole_0 X0) \wedge (v1_classes2 \\ & X0)) \wedge (((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k2_ordinal1 X0) (k2_ordinal1 \\ & X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k2_ordinal1 \\ & X0) (k2_ordinal1 X0)))))) \wedge ((v3_ordinal1 X2) \wedge (m1_subset_1 X2 \\ & X0)))) \Rightarrow (k4_ordinal4 X0 X1 X2 = k1_funct_1 X1 X2) \end{aligned} \quad (5)$$

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.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((r1_abian X0 X1) \Leftrightarrow ((X0 \in k9_xtuple_0 X1) \wedge (X0 = k1_funct_1 X1 X0))) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v5_ordinal1 \\ & X0) \wedge ((v1_ordinal2 X0) \wedge (v2_ordinal6 X0)))))) \Rightarrow ((v1_relat_1 X0) \wedge \\ & ((v1_funct_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_ordinal2 X0) \wedge ((v2_ordinal2 \\ & X0) \wedge (v3_ordinal2 X0)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k2_ordinal1 X0) (k2_ordinal1 \\ & X0)))) \Rightarrow (((v1_funct_1 X1) \wedge (v1_funct_2 X1 (k2_ordinal1 X0) (k2_ordinal1 \\ & X0))) \Rightarrow ((v5_ordinal1 X1) \wedge ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k2_ordinal1 \\ & X0) (k2_ordinal1 X0)) \wedge (v1_ordinal2 X1)))))) \end{aligned} \quad (10)$$

Theorem 1

$$\begin{aligned} & \forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge \\ & (v1_classes2 X1)) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & X2 (k2_ordinal1 X1) (k2_ordinal1 X1)) \wedge ((v2_ordinal6 X2) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_ordinal1 X1) (k2_ordinal1 X1)))))) \Rightarrow \\ & (\neg (k4_ordinal1 \in X1) \wedge ((X0 \in X1) \wedge (\forall X3. (v3_ordinal1 X3) \Rightarrow \\ & (\neg (X0 \in X3) \wedge (r1_abian X3 X2)))))) \end{aligned}$$