

178_ordinal6

(TMSyrkk8py6sLEWEBo3SafjsgWBGZScEPpy)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_classes2 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_ordinal6 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ 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 $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_zfmisc_1 : \iota \Rightarrow o$ be given. Let $k6_ordinal6 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_ordinal6 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $k3_ordinal6 : \iota \Rightarrow \iota$ be given. Let $v4_ordinal1 : \iota \Rightarrow o$ be given. Let $k7_ordinal6 : \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \wedge \\ & ((v3_ordinal1 X1) \wedge ((\neg v1_zfmisc_1 X1) \wedge (m1_subset_1 X1 X0)))) \Rightarrow \\ & ((v1_funct_1 (k6_ordinal6 X0 X1)) \wedge (v1_funct_2 (k6_ordinal6 \\ & X0 X1) (k2_ordinal1 X0) (k2_ordinal1 X0)) \wedge (v2_ordinal6 (k6_ordinal6 \\ & X0 X1))) \end{aligned} \quad (3)$$

Assume the following.

$$\neg v1_zfmisc_1 k4_ordinal1 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \wedge \\ & (v3_ordinal1 X1)) \Rightarrow ((v1_funct_1 (k6_ordinal6 X0 X1)) \wedge ((v1_funct_2 \\ & (k6_ordinal6 X0 X1) (k2_ordinal1 X0) (k2_ordinal1 X0)) \wedge (m1_subset_1 \\ & (k6_ordinal6 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (k2_ordinal1 X0) \\ & (k2_ordinal1 X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow ((v1_relat_1 \\ & (k11_ordinal6 X0)) \wedge ((v1_funct_1 (k11_ordinal6 X0)) \wedge ((v5_ordinal1 \\ & (k11_ordinal6 X0)) \wedge (v3_ordinal6 (k11_ordinal6 X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow (\forall X1. \\ & ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge ((v5_ordinal1 X1) \wedge (v3_ordinal6 \\ & X1)))) \Rightarrow ((X1 = k11_ordinal6 X0) \Leftrightarrow ((k9_xtuple_0 X1 = k2_ordinal1 \\ & X0) \wedge ((k1_funct_1 X1 k6_numbers = k6_ordinal6 X0 k4_ordinal1) \wedge \\ & ((\forall X2. (v3_ordinal1 X2) \Rightarrow ((k1_ordinal1 X2 \in k2_ordinal1 \\ & X0) \Rightarrow (k1_funct_1 X1 (k1_ordinal1 X2) = k3_ordinal6 (k1_funct_1 \\ & X1 X2)))))) \wedge (\forall X2. ((v3_ordinal1 X2) \wedge ((v4_ordinal1 X2) \wedge (\\ & \neg v1_xboole_0 X2))) \Rightarrow ((X2 \in k2_ordinal1 X0) \Rightarrow (k1_funct_1 X1 X2 = k7_ordinal6 \\ & (k5_relat_1 X1 X2)))))))))) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow ((k4_ordinal1 \in \\ & X0) \Rightarrow ((v1_funct_1 (k1_funct_1 (k11_ordinal6 X0) k6_numbers)) \wedge \\ & ((v1_funct_2 (k1_funct_1 (k11_ordinal6 X0) k6_numbers) (k2_ordinal1 \\ & X0) (k2_ordinal1 X0)) \wedge ((v2_ordinal6 (k1_funct_1 (k11_ordinal6 \\ & X0) k6_numbers)) \wedge (m1_subset_1 (k1_funct_1 (k11_ordinal6 X0) \\ & k6_numbers) (k1_zfmisc_1 (k2_zfmisc_1 (k2_ordinal1 X0) (k2_ordinal1 \\ & X0)))))))))) \end{aligned}$$