

t3_grcat_1 (TMN-
R JW4mTbeYhyxzTVUwohcwaoUx4p1hRLB)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_classes2 : \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_funct_5 : \iota$ be given. Let $k8_funct_5 : \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_classes1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow \\ & ((X1 = k1_xboole_0) \Rightarrow (X0 = k1_xboole_0)) \Rightarrow (X2 \in k1_funct_2 X0 X1)) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X2) \wedge (v1_classes2 \\ & X2)) \Rightarrow (((X0 \in X2) \wedge (X1 \in X2)) \Rightarrow ((k2_zfmisc_1 X0 X1 \in X2) \wedge (k1_funct_2 \\ & X0 X1 \in X2))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X2) \wedge (v1_classes2 \\ & X2)) \Rightarrow (((X0 \in X2) \wedge (X1 \in X2)) \Rightarrow ((k2_tarski X0 X1 \in X2) \wedge (k4_tarski X0 \\ & X1 \in X2))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge (v1_classes2 X1)) \Rightarrow \\ & ((X0 \in X1) \Rightarrow (k1_tarski X0 \in X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow (k1_xboole_0 \in X0) \quad (6)$$

Assume the following.

$$np_1 = k1_tarski k1_xboole_0 \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_ordinal1 X2) \Rightarrow (((X0 \in X1) \wedge (X1 \in X2)) \Rightarrow (X0 \in X2)) \quad (8)$$

Assume the following.

$$\neg v1_xboole_0 np_1 \quad (9)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (10)$$

Assume the following.

$$(v1_funct_1 k9_funct_5) \wedge ((v1_funct_2 k9_funct_5 (k2_zfmisc_1 np_1 np_1) np_1) \wedge (m1_subset_1 k9_funct_5 (k1_zfmisc_1 (k2_zfmisc_1 np_1 np_1) np_1))) \quad (11)$$

Assume the following.

$$(v1_funct_1 k8_funct_5) \wedge ((v1_funct_2 k8_funct_5 np_1 np_1) \wedge (m1_subset_1 k8_funct_5 (k1_zfmisc_1 (k2_zfmisc_1 np_1 np_1)))) \quad (12)$$

Assume the following.

$$\forall X0. (v1_classes2 X0) \Rightarrow ((v1_ordinal1 X0) \wedge (v2_classes1 X0)) \quad (13)$$

Theorem 1

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow ((k1_tarski k1_xboole_0 \in X0) \wedge ((k4_tarski (k1_tarski k1_xboole_0) (k1_tarski k1_xboole_0) \in X0) \wedge ((k2_zfmisc_1 (k1_tarski k1_xboole_0) (k1_tarski k1_xboole_0) \in X0) \wedge ((k9_funct_5 \in X0) \wedge (k8_funct_5 \in X0))))))$$