

t4_afinsq_2
(TMW4Cw1RhWoFFDjzm25Wj8ohxXjizNSZX7E)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge ((v5_ordinal1 \\ & X1) \wedge (v1_finset_1 X1)))) \Rightarrow (\neg(X0 \in k10_xtuple_0 X1) \wedge (\forall X2. \\ & (m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow (\neg(X2 \in k1_relset_1 k5_numbers \\ & X1) \wedge (k1_funct_1 X1 X2 = X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (m1_subset_1 (k1_relset_1 X0 X1) (k1_zfmisc_1 X0)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow ((v5_relat_1 X1 X0) \Leftrightarrow (r1_tarski (k10_xtuple_0 X1) X0)) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 \\ X0) \wedge (v1_finset_1 X0)))) \Rightarrow ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ ((v5_ordinal1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 X0)))))) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0. \forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge ((v5_ordinal1 \\ X1) \wedge (v1_finset_1 X1)))) \Rightarrow ((\forall X2.(v7_ordinal1 X2) \Rightarrow ((X2 \in \\ k1_relset_1 k5_numbers X1) \Rightarrow (k1_funct_1 X1 X2 \in X0))) \Rightarrow ((v1_relat_1 \\ X1) \wedge ((v5_relat_1 X1 X0) \wedge ((v1_funct_1 X1) \wedge ((v5_ordinal1 X1) \wedge \\ (v1_finset_1 X1)))))) \end{aligned}$$