

t80_afinsq_1
(TMd6ruyka7qpE5s8RZ6y4v8DfhytYGdnNCB)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k61_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 \\ X0) \wedge (v1_finset_1 X0)))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v5_ordinal1 \\ X1) \wedge ((v1_funct_1 X1) \wedge (v1_finset_1 X1)))) \Rightarrow (r1_tarski X0 (k1_ordinal4 \\ X0 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((\\ v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow \\ ((r1_tarski X0 X1) \Rightarrow (r1_tarski (k61_valued_1 X0 X2) (k61_valued_1 \\ X1 X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \tag{3}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{4}$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \tag{5}$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (&((v1_relat_1 \ X0) \wedge ((v5_ordinal1 \ X0) \wedge (\\ &v1_funct_1 \ X0))) \wedge ((v1_relat_1 \ X1) \wedge ((v5_ordinal1 \ X1) \wedge (v1_funct_1 \\ &X1)))) \Rightarrow ((v1_relat_1 \ (k1_ordinal4 \ X0 \ X1)) \wedge ((v5_ordinal1 \ (k1_ordinal4 \\ &X0 \ X1)) \wedge (v1_funct_1 \ (k1_ordinal4 \ X0 \ X1)))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \quad (8)$$

Assume the following.

$$\forall X0. (v1_xboole_0 \ X0) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \Rightarrow (v1_xboole_0 \ X1)) \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0. (&(v1_relat_1 \ X0) \wedge ((v5_ordinal1 \ X0) \wedge ((v1_funct_1 \\ &X0) \wedge (v1_finset_1 \ X0)))) \Rightarrow (\forall X1. ((v1_relat_1 \ X1) \wedge ((v5_ordinal1 \\ &X1) \wedge ((v1_funct_1 \ X1) \wedge (v1_finset_1 \ X1)))) \Rightarrow (\forall X2. (m2_subset_1 \\ &X2 \ k1_numbers \ k5_numbers) \Rightarrow (r1_tarski \ (k61_valued_1 \ X0 \ X2) \ (k61_valued_1 \\ &(k1_ordinal4 \ X0 \ X1) \ X2)))) \end{aligned}$$