

t66_finseq_4 (TMHiU-
jTtPZL7owXLoCMdbvkk6zDLrHb5aM8)

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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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r2_wellord2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r2_wellord2 X0 X1) \Leftrightarrow (k1_card_1 X0 = k1_card_1 X1) \quad (2)$$

Assume the following.

$$\forall X0. (v1_card_1 X0) \Rightarrow (\forall X1. (v1_card_1 X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (\neg r1_ordinal1 X1 X0))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1_ordinal1 (k1_card_1 X0) (k1_card_1 X1)) \Leftrightarrow (\exists X2. ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \wedge ((k9_xtuple_0 X2 = X1) \wedge (r1_tarski X0 (k10_xtuple_0 X2)))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. r2_wellord2 X0 X0 \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k1_relset_1 X0 X1 = k9_xtuple_0 X1) \quad (6)$$

Assume the following.

$$v1_xboole_0 \ k1_xboole_0 \quad (7)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Rightarrow ((v1_xboole_0 \ (k1_card_1 \ X0)) \wedge (v1_card_1 \ (k1_card_1 \ X0))) \quad (8)$$

Assume the following.

$$\forall X0.v1_card_1 \ (k1_card_1 \ X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski \ X0 \ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (10)$$

Assume the following.

$$\forall X0.((v1_relat_1 \ X0) \wedge (v1_funct_1 \ X0)) \Rightarrow (\forall X1.(X1 = k10_xtuple_0 \ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9_xtuple_0 \ X0) \wedge (X2 = k1_funct_1 \ X0 \ X3)))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow (((X1 \neq k1_xboole_0) \Rightarrow ((v1_funct_2 \ X2 \ X0 \ X1) \Leftrightarrow (X0 = k1_relset_1 \ X0 \ X2))) \wedge ((X1 = k1_xboole_0) \Rightarrow ((v1_funct_2 \ X2 \ X0 \ X1) \Leftrightarrow (X2 = k1_xboole_0)))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow ((v4_relat_1 \ X2 \ X0) \wedge (v5_relat_1 \ X2 \ X1)) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow (v1_relat_1 \ X2) \quad (14)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.((v1_funct_1 \ X2) \wedge ((v1_funct_2 \ X2 \ X0 \ X1) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1)))) \Rightarrow (\neg(k1_card_1 \ X0 \in k1_card_1 \ X1) \wedge (\forall X3.\neg(X3 \in X1) \wedge (\forall X4.\neg(X4 \in X0) \wedge (k1_funct_1 \ X2 \ X4 = X3))))))$$