

t20_graphsp
(TMLFx82aWgaXz7pL2Bx3TVa85HcMM9emK4B)

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Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_graphsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k13_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_graphsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. k9_xtuple_0 (k2_funct_7 X0 X2 X1) = k9_xtuple_0 X0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (2)$$

Assume the following.

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

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (4)$$

Assume the following.

$$\forall X0. k3_finseq_2 X0 = k13_finseq_1 X0 \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_finseq_1 X0 k1_numbers) \wedge (m1_subset_1 X2 k1_numbers)) \Rightarrow (k1_graphsp X0 X1 X2 = k2_funct_7 X0 X1 X2) \quad (6)$$

Assume the following.

$$(\neg v1_xboole_0\ k4_ordinal1) \wedge (v3_ordinal1\ k4_ordinal1) \quad (7)$$

Assume the following.

$$\neg v1_xboole_0\ k1_numbers \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0\ X0) \wedge ((\neg v1_xboole_0\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ X0)))) \Rightarrow (\forall X2.(m2_subset_1\ X2\ X0\ X1) \Rightarrow (m1_subset_1\ X2\ X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2\ X1\ X0) \Rightarrow (\forall X2.(m2_finseq_2\ X2\ X0\ X1) \Rightarrow (m2_finseq_1\ X2\ X0)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1\ X1\ X0) \Rightarrow ((v1_relat_1\ X1) \wedge (v1_funct_1\ X1) \wedge (v1_finseq_1\ X1)) \quad (11)$$

Assume the following.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (12)$$

Assume the following.

$$\forall X0.m1_finseq_2\ (k3_finseq_2\ X0)\ X0 \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_finseq_1\ X0\ k1_numbers) \wedge (m1_subset_1\ X2\ k1_numbers)) \Rightarrow (m2_finseq_1\ (k1_graphsp\ X0\ X1\ X2)\ k1_numbers) \quad (14)$$

Assume the following.

$$\forall X0.(m2_subset_1\ X0\ k1_numbers\ k5_numbers) \Rightarrow (\forall X1.(m2_subset_1\ X1\ k1_numbers\ k5_numbers) \Rightarrow (\forall X2.(m2_finseq_1\ X2\ k1_numbers) \Rightarrow (\forall X3.(m1_subset_1\ X3\ k1_numbers) \Rightarrow (k2_graphsp\ X0\ X1\ X2\ X3 = k1_graphsp\ (k1_graphsp\ X2\ X0\ X1)\ X1\ X3)))) \quad (15)$$

Theorem 1

$$\forall X0.(m2_subset_1\ X0\ k1_numbers\ k5_numbers) \Rightarrow (\forall X1.(m2_subset_1\ X1\ k1_numbers\ k5_numbers) \Rightarrow (\forall X2.(m2_finseq_2\ X2\ k1_numbers\ (k3_finseq_2\ k1_numbers)) \Rightarrow (\forall X3.(m1_subset_1\ X3\ k1_numbers) \Rightarrow (k4_finseq_1\ (k2_graphsp\ X0\ X1\ X2\ X3) = k4_finseq_1\ X2))))$$