

t12_polynom2 (TMGiyFBTWQtckD- VaDRt7soWxHRbU1CmEbqo)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v2_pre_poly : \iota \Rightarrow o$ be given. Let $k13_pre_poly : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k16_pre_poly : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_pre_poly : \iota \Rightarrow \iota$ be given. Let $k14_pre_poly : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_funct_1 : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. k1_funct_1 (k16_pre_poly X0) X1 = k6_numbers \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((\\ v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (((k9_xtuple_0 X0 = k9_xtuple_0 \\ X1) \wedge (\forall X2. (X2 \in k9_xtuple_0 X0) \Rightarrow (k1_funct_1 X0 X2 = k1_funct_1 \\ X1 X2))) \Rightarrow (X0 = X1))) \end{aligned} \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k1_relset_1 X0 X1 = k9_xtuple_0 X1) \quad (5)$$

Assume the following.

$$\forall X0. k15_pre_poly X0 = k14_pre_poly X0 \quad (6)$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k14_pre_poly X0) \quad (7)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ X2 X0 X1) \Rightarrow (m1_subset_1 X2 X0)) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0. m2_subset_1 (k16_pre_poly X0) (k14_pre_poly X0) (k15_pre_poly X0) \quad (10)$$

Assume the following.

$$\forall X0. m1_subset_1 (k15_pre_poly X0) (k1_zfmisc_1 (k14_pre_poly X0)) \quad (11)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. (X1 = k13_pre_poly X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (k1_funct_1 X0 X2 \neq k6_numbers))) \quad (12)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow ((v1_partfun1 X1 X0) \Leftrightarrow (k1_relset_1 X0 X1 = X0)) \quad (13)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k15_pre_poly X0))) \Rightarrow (v4_funct_1 X1) \quad (14)$$

Assume the following.

$$\forall X0. (v4_funct_1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge (v1_funct_1 X1))) \quad (15)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (16)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k15_pre_poly X0)))) \Rightarrow (\forall X2. (m1_subset_1 X2 X1) \Rightarrow ((v1_partfun1 X2 X0) \wedge ((v4_valued_0 X2) \wedge (v2_pre_poly X2)))) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k15_pre_poly X0)))\Rightarrow(\forall X2.(m1_subset_1 X2 X1)\Rightarrow(v4_relat_1 X2 X0)) \quad (18)$$

Theorem 1

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge((v4_relat_1 X1 X0)\wedge(v1_funct_1 X1)\wedge((v1_partfun1 X1 X0)\wedge((v4_valued_0 X1)\wedge(v2_pre_poly X1))))))\Rightarrow((k13_pre_poly X1 = k1_xboole_0)\Rightarrow(X1 = k16_pre_poly X0))$$