

t3_pscomp_1 (TMPpkzPfydg- bAEH6wRrfRF9gkrhAjSrQUWX)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ 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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_pscomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $k3_seq_4 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k7_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_seq_4 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X3) \wedge \\ & ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))) \Rightarrow (\forall X4. \neg (X4 \in k7_relset_1 X0 X1 X3 X2) \wedge (\forall X5. \\ & \neg (X5 \in X0) \wedge ((X5 \in X2) \wedge (X4 = k1_funct_1 X3 X5)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge (\\ & v3_membered X1)) \Rightarrow (((\forall X2. (v1_xreal_0 X2) \Rightarrow ((X2 \in X1) \Rightarrow (r1_xxreal_0 \\ & X0 X2))) \wedge (\forall X2. (v1_xreal_0 X2) \Rightarrow ((\forall X3. (v1_xreal_0 \\ & X3) \Rightarrow ((X3 \in X1) \Rightarrow (r1_xxreal_0 X2 X3)))) \Rightarrow (r1_xxreal_0 X2 X0))) \Rightarrow (\\ & X0 = k3_seq_4 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X3) \wedge \\ & ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))) \Rightarrow ((X1 \neq k1_xboole_0) \Rightarrow (\forall X4. (\exists X5. (X5 \in X0) \wedge \\ & ((X5 \in X2) \wedge (X4 = k1_funct_1 X3 X5))) \Rightarrow (X4 \in k7_relset_1 X0 X1 X3 X2))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1)\Rightarrow((v1_xboole_0 X1)\vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1)\Rightarrow(m1_subset_1 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(k7_relset_1 X0 X1 X2 X3 = k7_relat_1 X2 X3) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers))\Rightarrow(k5_seq_4 X0 = k3_seq_4 X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v3_valued_0 X0)))\Rightarrow(k1_seq_1 X0 X1 = k1_funct_1 X0 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v3_valued_0 X0)))\Rightarrow(v1_xreal_0 (k1_funct_1 X0 X1)) \quad (9)$$

Assume the following.

$$v3_membered k1_numbers \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))))))))\Rightarrow(\neg v1_xboole_0 (k7_relat_1 X2 X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge(v3_valued_0 X0))\Rightarrow(v3_membered (k7_relat_1 X0 X1)) \quad (12)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge(l1_struct_0 X0))\Rightarrow(\neg v1_xboole_0 (u1_struct_0 X0)) \quad (13)$$

Assume the following.

$$v1_xboole_0 \ k1_xboole_0 \quad (14)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (15)$$

Assume the following.

$$\forall X0.(l1_pre_topc \ X0) \Rightarrow (l1_struct_0 \ X0) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow (m1_subset_1 \ (k7_relset_1 \ X0 \ X1 \ X2 \ X3) \ (k1_zfmisc_1 \ X1)) \quad (17)$$

Assume the following.

$$\forall X0.(l1_struct_0 \ X0) \Rightarrow (\forall X1.((v1_funct_1 \ X1) \wedge ((v1_funct_2 \ X1 \ (u1_struct_0 \ X0) \ k1_numbers) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (u1_struct_0 \ X0) \ k1_numbers)))))) \Rightarrow (k1_pscomp_1 \ X0 \ X1 = k5_seq_4 \ (k7_relset_1 \ (u1_struct_0 \ X0) \ k1_numbers \ X1 \ (u1_struct_0 \ X0)))) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow (v1_relat_1 \ X2) \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.(v3_membered \ X1) \Rightarrow (\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow (v3_valued_0 \ X2)) \quad (20)$$

Theorem 1

$$\forall X0.(v1_xreal_0 \ X0) \Rightarrow (\forall X1.((\neg v2_struct_0 \ X1) \wedge ((v2_pre_topc \ X1) \wedge (l1_pre_topc \ X1))) \Rightarrow (\forall X2.((v1_funct_1 \ X2) \wedge ((v1_funct_2 \ X2 \ (u1_struct_0 \ X1) \ k1_numbers) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (u1_struct_0 \ X1) \ k1_numbers)))))) \Rightarrow (((\forall X3.(m1_subset_1 \ X3 \ (u1_struct_0 \ X1)) \Rightarrow (r1_xxreal_0 \ X0 \ (k1_seq_1 \ X2 \ X3))) \wedge (\forall X3.(v1_xreal_0 \ X3) \Rightarrow ((\forall X4.(m1_subset_1 \ X4 \ (u1_struct_0 \ X1)) \Rightarrow (r1_xxreal_0 \ X3 \ (k1_seq_1 \ X2 \ X4))) \Rightarrow (r1_xxreal_0 \ X3 \ X0)))))) \Rightarrow (X0 = k1_pscomp_1 \ X1 \ X2))))$$