

t9_pscomp_1 (TMFSWx- hYo7DiGJwC8qKEpXfj8VDRC6XdwHw)

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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 $v1_pscomp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k32_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_rerset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_measure6 : \iota \Rightarrow \iota$ be given. Let $v2_rcomp_1 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $k30_valued_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 k1_numbers)) \Rightarrow \\ & (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 k1_numbers) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers)))))) \Rightarrow \\ & (k8_rerset_1 X0 k1_numbers (k32_valued_1 X0 k1_numbers X2) X1 = \\ & k8_rerset_1 X0 k1_numbers X2 (k4_measure6 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow ((v2_rcomp_1 X0) \Leftrightarrow (v2_rcomp_1 (k4_measure6 X0))) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v3_membered X1) \wedge ((v1_funct_1 \\ & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow (k32_valued_1 \\ & X0 X1 X2 = k30_valued_1 X2) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v1_xboole_0 X1) \wedge (v3_membered \\ & X1)) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 \\ & (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow ((v1_funct_1 (k30_valued_1 \\ & X2)) \wedge (v1_partfun1 (k30_valued_1 X2) X0)) \end{aligned} \tag{4}$$

Assume the following.

$$v3_membered\ k1_numbers \quad (5)$$

Assume the following.

$$\neg v1_xboole_0\ k1_numbers \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ k1_numbers)) \Rightarrow (m1_subset_1\ (k4_measure6\ X0)\ (k1_zfmisc_1\ k1_numbers)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v3_membered\ X1) \wedge ((v1_funct_1\ X2) \wedge (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))))) \Rightarrow ((v1_funct_1\ (k32_valued_1\ X0\ X1\ X2)) \wedge (m1_subset_1\ (k32_valued_1\ X0\ X1\ X2)\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ k1_numbers)))) \quad (8)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.((v1_funct_1\ X1) \wedge ((v1_funct_2\ X1\ (u1_struct_0\ X0)\ k1_numbers) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ X0)\ k1_numbers)))))) \Rightarrow ((v1_pscomp_1\ X1\ X0) \Leftrightarrow (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ k1_numbers)) \Rightarrow ((v2_rcomp_1\ X2) \Rightarrow (v4_pre_topc\ (k8_relset_1\ (u1_struct_0\ X0)\ k1_numbers\ X1\ X2)\ X0)))))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1))) \Rightarrow ((v1_partfun1\ X2\ X0) \Rightarrow (v1_funct_2\ X2\ X0\ X1)) \quad (10)$$

Theorem 1

$$\forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.((v1_funct_1\ X1) \wedge ((v1_funct_2\ X1\ (u1_struct_0\ X0)\ k1_numbers) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ X0)\ k1_numbers)))))) \Rightarrow ((v1_pscomp_1\ X1\ X0) \Rightarrow (v1_pscomp_1\ (k32_valued_1\ (u1_struct_0\ X0)\ k1_numbers\ X1)\ X0)))$$