

t35_ec_pf_2

(TMQW52YK3UroKQLtvSYdc5RpqtvsvjLxR3hj)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k9_int_3 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_ec_pf_1 : \iota \Rightarrow \iota$ be given. Let $k6_ec_pf_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_group_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_binom : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_ec_pf_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k6_ec_pf_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ec_pf_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_ec_pf_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (\forall X1.(m1_subset_1 \\
 & \quad X1 (u1_struct_0 (k9_int_3 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (\\
 & \quad u1_struct_0 (k9_int_3 X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\
 & \quad (k9_int_3 X0))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k9_int_3 \\
 & \quad X0))) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 (k9_int_3 X0))) \Rightarrow \\
 & \quad (k3_funct_2 (k3_zfmisc_1 (u1_struct_0 (k9_int_3 X0)) (u1_struct_0 \\
 & \quad (k9_int_3 X0)) (u1_struct_0 (k9_int_3 X0))) (u1_struct_0 (k9_int_3 \\
 & \quad X0)) (k5_ec_pf_1 X0 X1 X2) (k4_domain_1 (u1_struct_0 (k9_int_3 \\
 & \quad X0)) (u1_struct_0 (k9_int_3 X0)) (u1_struct_0 (k9_int_3 X0)) X3 \\
 & \quad X4 X5) = k5_algstr_0 (k9_int_3 X0) (k8_group_1 (k9_int_3 X0) (k2_binom \\
 & \quad (k9_int_3 X0) X4 np_2) X5) (k3_rlvect_1 (k9_int_3 X0) (k3_rlvect_1 \\
 & \quad (k9_int_3 X0) (k2_binom (k9_int_3 X0) X3 np_3) (k8_group_1 (k9_int_3 \\
 & \quad X0) (k8_group_1 (k9_int_3 X0) X1 X3) (k2_binom (k9_int_3 X0) X5 np_2))) \\
 & \quad (k8_group_1 (k9_int_3 X0) X2 (k2_binom (k9_int_3 X0) X5 np_3))))))))) \\
 & \tag{1}
 \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0.((v7_ordinal1\ X0)\wedge(v1_int_2\ X0))\Rightarrow(\forall X1.(m1_subset_1 \\ X1\ (u1_struct_0\ (k9_int_3\ X0)))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (\\ u1_struct_0\ (k9_int_3\ X0)))\Rightarrow(\forall X3.(m2_subset_1\ X3\ (k3_ec_pf_1 \\ (k9_int_3\ X0))\ (k6_ec_pf_1\ X0\ X1\ X2))\Rightarrow(X3 = k4_domain_1\ (u1_struct_0 \\ (k9_int_3\ X0))\ (u1_struct_0\ (k9_int_3\ X0))\ (u1_struct_0\ (k9_int_3 \\ X0))\ (k4_ec_pf_2\ X0\ X1\ X2\ X3)\ (k5_ec_pf_2\ X0\ X1\ X2\ X3)\ (k6_ec_pf_2 \\ X0\ X1\ X2\ X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1\ X0\ X1)\Rightarrow((v1_xboole_0\ X1)\vee (X0 \in X1)) \quad (3)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0\ X0)\wedge((\neg v1_xboole_0\ X1)\wedge \\ (m1_subset_1\ X1\ (k1_zfmisc_1\ X0))))\Rightarrow(\forall X2.(m2_subset_1 \\ X2\ X0\ X1)\Leftrightarrow(m1_subset_1\ X2\ X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.(((v7_ordinal1\ X0)\wedge \\ (v1_int_2\ X0))\wedge((m1_subset_1\ X1\ (u1_struct_0\ (k9_int_3\ X0)))\wedge \\ ((m1_subset_1\ X2\ (u1_struct_0\ (k9_int_3\ X0)))\wedge(m1_subset_1\ X3 \\ (k6_ec_pf_1\ X0\ X1\ X2))))))\Rightarrow(m1_subset_1\ (k6_ec_pf_2\ X0\ X1\ X2\ X3) \\ (u1_struct_0\ (k9_int_3\ X0))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((v7_ordinal1\ X0)\wedge(v1_int_2 \\ X0))\wedge((m1_subset_1\ X1\ (u1_struct_0\ (k9_int_3\ X0)))\wedge(m1_subset_1 \\ X2\ (u1_struct_0\ (k9_int_3\ X0))))))\Rightarrow((\neg v1_xboole_0\ (k6_ec_pf_1 \\ X0\ X1\ X2))\wedge(m1_subset_1\ (k6_ec_pf_1\ X0\ X1\ X2)\ (k1_zfmisc_1\ (k3_ec_pf_1 \\ (k9_int_3\ X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.(((v7_ordinal1\ X0)\wedge \\ (v1_int_2\ X0))\wedge((m1_subset_1\ X1\ (u1_struct_0\ (k9_int_3\ X0)))\wedge \\ ((m1_subset_1\ X2\ (u1_struct_0\ (k9_int_3\ X0)))\wedge(m1_subset_1\ X3 \\ (k6_ec_pf_1\ X0\ X1\ X2))))))\Rightarrow(m1_subset_1\ (k5_ec_pf_2\ X0\ X1\ X2\ X3) \\ (u1_struct_0\ (k9_int_3\ X0))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((v7_ordinal1\ X0)\wedge \\ & (v1_int_2\ X0))\wedge((m1_subset_1\ X1\ (u1_struct_0\ (k9_int_3\ X0)))\wedge \\ & ((m1_subset_1\ X2\ (u1_struct_0\ (k9_int_3\ X0)))\wedge(m1_subset_1\ X3 \\ & (k6_ec_pf_1\ X0\ X1\ X2))))))\Rightarrow(m1_subset_1\ (k4_ec_pf_2\ X0\ X1\ X2\ X3) \\ & (u1_struct_0\ (k9_int_3\ X0))) \end{aligned} \tag{9}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v7_ordinal1\ X0)\wedge(v1_int_2\ X0))\Rightarrow(\forall X1.(m1_subset_1 \\ & X1\ (u1_struct_0\ (k9_int_3\ X0)))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (\\ & u1_struct_0\ (k9_int_3\ X0)))\Rightarrow(k6_ec_pf_1\ X0\ X1\ X2 = \text{ReplSep}(\text{toset} \\ & (\lambda X3 : \iota.m2_subset_1\ X3\ (k3_zfmisc_1\ (u1_struct_0\ (k9_int_3 \\ & X0))\ (u1_struct_0\ (k9_int_3\ X0))\ (u1_struct_0\ (k9_int_3\ X0))) \\ & (k3_ec_pf_1\ (k9_int_3\ X0))))\ (\lambda X3 : \iota.k3_funct_2\ (k3_zfmisc_1 \\ & (u1_struct_0\ (k9_int_3\ X0))\ (u1_struct_0\ (k9_int_3\ X0))\ (u1_struct_0 \\ & (k9_int_3\ X0)))\ (u1_struct_0\ (k9_int_3\ X0))\ (k5_ec_pf_1\ X0\ X1\ X2) \\ & X3 = k4_struct_0\ (k9_int_3\ X0))\ (\lambda X3 : \iota.X3)))) \end{aligned} \tag{10}$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0))\Rightarrow(v1_xboole_0\ X1)) \tag{11}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v7_ordinal1\ X0)\wedge(v1_int_2\ X0))\Rightarrow(\forall X1.(m1_subset_1 \\ & X1\ (u1_struct_0\ (k9_int_3\ X0)))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (\\ & u1_struct_0\ (k9_int_3\ X0)))\Rightarrow(\forall X3.(m2_subset_1\ X3\ (k3_ec_pf_1 \\ & (k9_int_3\ X0))\ (k6_ec_pf_1\ X0\ X1\ X2))\Rightarrow(k5_algstr_0\ (k9_int_3\ X0) \\ & (k8_group_1\ (k9_int_3\ X0)\ (k2_binom\ (k9_int_3\ X0)\ (k5_ec_pf_2 \\ & X0\ X1\ X2\ X3)\ np_2)\ (k6_ec_pf_2\ X0\ X1\ X2\ X3))\ (k3_rlvect_1\ (k9_int_3 \\ & X0)\ (k3_rlvect_1\ (k9_int_3\ X0)\ (k2_binom\ (k9_int_3\ X0)\ (k4_ec_pf_2 \\ & X0\ X1\ X2\ X3)\ np_3)\ (k8_group_1\ (k9_int_3\ X0)\ (k8_group_1\ (k9_int_3 \\ & X0)\ X1\ (k4_ec_pf_2\ X0\ X1\ X2\ X3))\ (k2_binom\ (k9_int_3\ X0)\ (k6_ec_pf_2 \\ & X0\ X1\ X2\ X3)\ np_2))))\ (k8_group_1\ (k9_int_3\ X0)\ X2\ (k2_binom\ (k9_int_3 \\ & X0)\ (k6_ec_pf_2\ X0\ X1\ X2\ X3)\ np_3))) = k4_struct_0\ (k9_int_3\ X0)))) \end{aligned}$$