

t47_ec_pf_1 (TMQdwAHemuKb- wwqJsPS9faH6nAby7CUesja)

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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 $k3_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k4_ec_pf_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_ec_pf_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_ec_pf_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k7_ec_pf_1 : \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_eqrel_1 : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (k4_tarski X0 X1 \in k2_zfmisc_1 X2 X3) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X3)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (\forall X1. (m2_subset_1 \\ & X1 (k3_zfmisc_1 (u1_struct_0 (k9_int_3 X0)) (u1_struct_0 (k9_int_3 \\ & X0)) (u1_struct_0 (k9_int_3 X0))) (k3_ec_pf_1 (k9_int_3 X0))) \Rightarrow \\ & (\forall X2. (m2_subset_1 X2 (k3_zfmisc_1 (u1_struct_0 (k9_int_3 \\ & X0)) (u1_struct_0 (k9_int_3 X0)) (u1_struct_0 (k9_int_3 X0))) \\ & (k3_ec_pf_1 (k9_int_3 X0))) \Rightarrow ((r1_ec_pf_1 X0 X1 X2) \Leftrightarrow (k1_domain_1 \\ & (k3_ec_pf_1 (k9_int_3 X0)) (k3_ec_pf_1 (k9_int_3 X0)) X1 X2 \in k7_ec_pf_1 \\ & X0)))) \quad (4) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 X0))\Rightarrow(k9_subset_1 X0 X1 X2 = k3_xboole_0 X1 X2) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge((m1_subset_1 X2 X0)\wedge(m1_subset_1 X3 X1))))\Rightarrow(k1_domain_1 X0 X1 X2 X3 = k4_tarski X2 X3) \quad (6)$$

Assume the following.

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

Assume the following.

$$\forall X0.m1_subset_1 (k1_eqrel_1 X0) (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k3_xboole_0 X0 X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 \in X0)\wedge(X3 \in X1))) \quad (10)$$

Assume the following.

$$\forall X0.k1_eqrel_1 X0 = k2_zfmisc_1 X0 X0 \quad (11)$$

Assume the following.

$$\forall X0.((v7_ordinal1 X0)\wedge(v1_int_2 X0))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 (k9_int_3 X0)))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 (k9_int_3 X0)))\Rightarrow(k8_ec_pf_1 X0 X1 X2 = k9_subset_1 (k2_zfmisc_1 (k6_ec_pf_1 X0 X1 X2) (k6_ec_pf_1 X0 X1 X2)) (k7_ec_pf_1 X0) (k1_eqrel_1 (k6_ec_pf_1 X0 X1 X2))))) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v7_ordinal1\ X0)\wedge(v1_int_2\ X0))\Rightarrow(\forall X1.(m1_subset_1 \\ & \quad X1\ (u1_struct_0\ (k9_int_3\ X0)))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (\\ & \quad u1_struct_0\ (k9_int_3\ X0)))\Rightarrow(\forall X3.(m2_subset_1\ X3\ (k3_zfmisc_1 \\ & \quad (u1_struct_0\ (k9_int_3\ X0))\ (u1_struct_0\ (k9_int_3\ X0))\ (u1_struct_0 \\ & \quad (k9_int_3\ X0)))\ (k3_ec_pf_1\ (k9_int_3\ X0)))\Rightarrow(\forall X4.(m2_subset_1 \\ & \quad X4\ (k3_zfmisc_1\ (u1_struct_0\ (k9_int_3\ X0))\ (u1_struct_0\ (k9_int_3 \\ & \quad X0))\ (u1_struct_0\ (k9_int_3\ X0)))\ (k3_ec_pf_1\ (k9_int_3\ X0)))\Rightarrow \\ & \quad (((X3 \in k6_ec_pf_1\ X0\ X1\ X2)\wedge(X4 \in k6_ec_pf_1\ X0\ X1\ X2))\Rightarrow((k4_ec_pf_1 \\ & \quad X0\ X1\ X2 = k4_struct_0\ (k9_int_3\ X0))\vee((r1_ec_pf_1\ X0\ X3\ X4)\Leftrightarrow(k1_domain_1 \\ & \quad (k3_ec_pf_1\ (k9_int_3\ X0))\ (k3_ec_pf_1\ (k9_int_3\ X0))\ X3\ X4 \in k8_ec_pf_1 \\ & \quad X0\ X1\ X2)))))) \end{aligned}$$