

t16_bvfunc14
(TMGxj7HSDXEheRA7NFHQ3VGkhCrMMgTPzps)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.k2_enumset1\ X0\ X1\ X2\ X3 = k2_xboole_0\ (k1_tarski\ X0)\ (k1_enumset1\ X1\ X2\ X3) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k1_enumset1\ X0\ X1\ X2 = k2_xboole_0\ (k2_tarski\ X0\ X1)\ (k1_tarski\ X2) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarski\ X0\ X1 = k2_xboole_0\ (k1_tarski\ X0)\ (k1_tarski\ X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(k9_xtuple_0\ (k2_funcop_1\ X0\ X1) = X0) \wedge (r1_tarski\ (k10_xtuple_0\ (k2_funcop_1\ X0\ X1))\ (k1_tarski\ X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.k7_funcop_1\ X0\ X1 = k2_funcop_1\ X0\ X1 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1\ X0) \wedge (v1_funct_1\ X0)) \wedge ((v1_relat_1\ X1) \wedge (v1_funct_1\ X1))) \Rightarrow (k1_funct_4\ X0\ X0 = X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 (k16_funcop_1 X0 X1))\wedge(v1_funct_1 (k16_funcop_1 X0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(v1_funct_1 (k7_funcop_1 X0 X1))\wedge((v1_funct_2 (k7_funcop_1 X0 X1) X0 (k1_tarski X1))\wedge(m1_subset_1 (k7_funcop_1 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 X0 (k1_tarski X1)))))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge(v1_funct_1 X0))\wedge((v1_relat_1 X1)\wedge(v1_funct_1 X1)))\Rightarrow((v1_relat_1 (k1_funct_4 X0 X1))\wedge(v1_funct_1 (k1_funct_4 X0 X1))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarski X0) X1 \quad (10)$$

Assume the following.

$$\forall X0.(((v1_relat_1 X0)\wedge(v1_funct_1 X0))\Rightarrow(\forall X1.(((v1_relat_1 X1)\wedge(v1_funct_1 X1))\Rightarrow(\forall X2.(((v1_relat_1 X2)\wedge(v1_funct_1 X2))\Rightarrow((X2 = k1_funct_4 X0 X1)\Leftrightarrow((k9_xtuple_0 X2 = k2_xboole_0 (k9_xtuple_0 X0) (k9_xtuple_0 X1))\wedge(\forall X3.(X3 \in k2_xboole_0 (k9_xtuple_0 X0) (k9_xtuple_0 X1))\Rightarrow(((X3 \in k9_xtuple_0 X1)\Rightarrow(k1_funct_1 X2 X3 = k1_funct_1 X1 X3))\wedge((\neg X3 \in k9_xtuple_0 X1)\Rightarrow(k1_funct_1 X2 X3 = k1_funct_1 X0 X3))))))))))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (12)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(((v1_relat_1 X4)\wedge(v1_funct_1 X4))\Rightarrow(\forall X5.\forall X6.\forall X7.\forall X8.(X4 = k1_funct_4 (k1_funct_4 (k1_funct_4 (k16_funcop_1 X1 X6) (k16_funcop_1 X2 X7)) (k16_funcop_1 X3 X8)) (k16_funcop_1 X0 X5))\Rightarrow(k9_xtuple_0 X4 = k2_enumset1 X0 X1 X2 X3)))$$