

t10_abian (TMagc- TKW279QokMfqdBrc22oDTnMLTDp8yR)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_abian : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k9_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (k9_funct_7 X0 (k1_nat_1 X1 np_1) = k3_relat_1 (k9_funct_7 X0 X1) X0)) \quad (1)$$

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.

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

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1_funct_1 X3) \wedge \\ & ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow (\forall X4.((v1_relat_1 X4) \wedge (v1_funct_1 X4)) \Rightarrow ((\\ & X2 \in X0) \Rightarrow ((X1 = k1_xboole_0) \vee (k1_funct_1 (k3_relat_1 X3 X4) X2 = \\ & k1_funct_1 X4 (k1_funct_1 X3 X2)))))) \quad (4) \end{aligned}$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0)))\Rightarrow(\forall X2.(m2_subset_1 X2 X0 X1)\Leftrightarrow(m1_subset_1 X2 X1)) \quad (6)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge(((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))))))\wedge(m1_subset_1 X3 X0)))\Rightarrow(k3_funct_2 X0 X1 X2 X3 = k1_funct_1 X2 X3) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers)\wedge(v7_ordinal1 X1))\Rightarrow(k2_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0)\wedge(m1_subset_1 X1 k5_numbers))\Rightarrow(k1_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1_funct_1 X1)\wedge((v1_funct_2 X1 X0 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))))))\wedge(m1_subset_1 X2 k5_numbers))\Rightarrow(k1_abian X0 X1 X2 = k9_funct_7 X1 X2) \quad (11)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (12)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (13)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge(((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))))))\wedge(m1_subset_1 X3 X0)))\Rightarrow(m1_subset_1 (k3_funct_2 X0 X1 X2 X3) X1) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers)\wedge(v7_ordinal1 X1))\Rightarrow(m2_subset_1 (k2_nat_1 X0 X1) k1_numbers k5_numbers) \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1_funct_1 X1)\wedge((v1_funct_2 \\ & X1 X0 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))))\wedge \\ & (m1_subset_1 X2 k5_numbers))\Rightarrow((v1_funct_1 (k1_abian X0 X1 X2))\wedge \\ & ((v1_funct_2 (k1_abian X0 X1 X2) X0 X0)\wedge(m1_subset_1 (k1_abian \\ & X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))))) \end{aligned} \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (18)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers)\Rightarrow(\forall X1.(\neg v1_xboole_0 \\ & X1)\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge((v1_funct_2 X2 X1 X1)\wedge(m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))))))\Rightarrow(\forall X3.(m1_subset_1 \\ & X3 X1)\Rightarrow(k3_funct_2 X1 X1 (k1_abian X1 X2 (k2_nat_1 X0 np_1)) X3 = \\ & k3_funct_2 X1 X1 X2 (k3_funct_2 X1 X1 (k1_abian X1 X2 X0) X3)))) \end{aligned}$$