

t26_normform (TMbWXdFd- BXL8ER125XZdnfSaiCrd1VdMesa)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finsub_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_normform : \iota \Rightarrow \iota$ be given. Let $r1_normform : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v4_finsub_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((r1_tarski X0 X1) \wedge ((r1_tarski X2 X3) \wedge (r1_xboole_0 X1 X3))) \Rightarrow (r1_xboole_0 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m2_subset_1 X1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform X0)) \Rightarrow (r1_xboole_0 (k2_domain_1 (k5_finsub_1 X0) (k5_finsub_1 X0) X1) (k3_domain_1 (k5_finsub_1 X0) (k5_finsub_1 X0) X1)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0))) \Rightarrow ((X1 \in k7_normform X0) \Leftrightarrow (r1_xboole_0 (k2_domain_1 (k5_finsub_1 X0) (k5_finsub_1 X0) X1) (k3_domain_1 (k5_finsub_1 X0) (k5_finsub_1 X0) X1))) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X2 (k2_zfmisc_1 X0 X1))))\Rightarrow(k3_domain_1 X0 X1 X2 = k2_xtuple_0 X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X2 (k2_zfmisc_1 X0 X1))))\Rightarrow(k2_domain_1 X0 X1 X2 = k1_xtuple_0 X2) \quad (7)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 (k7_normform X0) \quad (8)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 (k5_finsub_1 X0))\wedge(v4_finsub_1 (k5_finsub_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0))))\Rightarrow(\forall X2.(m2_subset_1 X2 X0 X1)\Rightarrow(m1_subset_1 X2 X0)) \quad (10)$$

Assume the following.

$$\forall X0.m1_subset_1 (k7_normform X0) (k1_zfmisc_1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0))) \quad (11)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v1_xboole_0 X0)\wedge(v4_finsub_1 X0))\Rightarrow(\forall X1. \\ &((\neg v1_xboole_0 X1)\wedge(v4_finsub_1 X1))\Rightarrow(\forall X2.(m1_subset_1 X2 (k2_zfmisc_1 X0 X1))\Rightarrow(\forall X3.(m1_subset_1 X3 (k2_zfmisc_1 X0 X1))\Rightarrow((r1_normform X0 X1 X2 X3)\Leftrightarrow((r1_tarski (k2_domain_1 X0 X1 X2) (k2_domain_1 X0 X1 X3))\wedge(r1_tarski (k3_domain_1 X0 X1 X2) (k3_domain_1 X0 X1 X3))))))) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(v1_xboole_0 X1)) \quad (13)$$

Theorem 1

$$\begin{aligned} &\forall X0.\forall X1.(m1_subset_1 X1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)))\Rightarrow(\forall X2.(m2_subset_1 X2 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform X0))\Rightarrow((r1_normform (k5_finsub_1 X0) (k5_finsub_1 X0) X1 X2)\Rightarrow(m2_subset_1 X1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform X0)))) \end{aligned}$$