

t18_normform
(TMRtGVzpzRq7xqC4qSPfiGqyStciPC9GP61m)

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Let $v1_setwise : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_normform : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finsub_1 : \iota \Rightarrow \iota$ be given. Let $r3_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_setwise : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v4_finsub_1 : \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.r3_binop_1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k1_domain_1 (k5_finsub_1 X0) (k5_finsub_1 X0) (k1_setwise X0) (k1_setwise X0)) (k5_normform X0) \quad (1)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 (k5_finsub_1 X0)) \wedge (v4_finsub_1 (k5_finsub_1 X0)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge (\neg v1_xboole_0 X1)) \Rightarrow (\neg v1_xboole_0 (k2_zfmisc_1 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_funct_1 (k5_normform X0)) \wedge ((v1_funct_2 (k5_normform X0) (k2_zfmisc_1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0))) (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0))) \wedge (m1_subset_1 (k5_normform X0) (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)))) (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)))))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xboole_0 (k1_setwise X0)) \wedge (m1_subset_1 (k1_setwise X0) (k5_finsub_1 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge \\ & ((\neg v1_xboole_0 X1)\wedge((m1_subset_1 X2 X0)\wedge(m1_subset_1 X3 X1))))\Rightarrow \\ & (m1_subset_1 (k1_domain_1 X0 X1 X2 X3) (k2_zfmisc_1 X0 X1)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.((v1_funct_1 X1)\wedge(\\ & (v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0))))))\Rightarrow((v1_setwiseo X1 X0)\Leftrightarrow \\ & (\exists X2.(m1_subset_1 X2 X0)\wedge(r3_binop_1 X0 X2 X1))) \end{aligned} \quad (7)$$

Theorem 1

$$\forall X0.v1_setwiseo (k5_normform X0) (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0))$$