

t41_normform

(TMJLReu8rsfBwnQEjgiMekQYR3qCL6rvUTg)

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Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finsub_1 : \iota \Rightarrow \iota$ be given. Let $k7_normform : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_normform : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_normform : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v4_finsub_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m2_subset_1 X1 (k2_zfmisc_1 (k5_finsub_1 \\ & X0) (k5_finsub_1 X0)) (k7_normform X0)) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k5_finsub_1 (k7_normform X0))) \Rightarrow (((X1 \in X2) \wedge (\forall X3. (m2_subset_1 \\ & X3 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform \\ & X0)) \Rightarrow (((X3 \in X2) \wedge (r1_normform (k5_finsub_1 X0) (k5_finsub_1 X0) \\ & X3 X1)) \Rightarrow (X3 = X1)))) \Rightarrow (X1 \in k9_normform X0 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (v4_finsub_1 X0)) \Rightarrow (\forall X1. \\ & ((\neg v1_xboole_0 X1) \wedge (v4_finsub_1 X1)) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k2_zfmisc_1 X0 X1)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k2_zfmisc_1 \\ & X0 X1)) \Rightarrow (\forall X4. (m1_subset_1 X4 (k2_zfmisc_1 X0 X1)) \Rightarrow (((r1_normform \\ & X0 X1 X2 X3) \wedge (r1_normform X0 X1 X3 X4)) \Rightarrow (r1_normform X0 X1 X2 X4)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (v4_finsub_1 X0)) \Rightarrow (\forall X1. \\ & ((\neg v1_xboole_0 X1) \wedge (v4_finsub_1 X1)) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k2_zfmisc_1 X0 X1)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k2_zfmisc_1 \\ & X0 X1)) \Rightarrow (((r1_normform X0 X1 X2 X3) \wedge (r1_normform X0 X1 X3 X2)) \Rightarrow (\\ & X2 = X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1 : \iota \Rightarrow \iota \Rightarrow o. \forall X2. ((\forall X3. \\
& (m1_subset_1 X3 X2) \Rightarrow (X1 X3 X3)) \wedge (\forall X3. (m1_subset_1 X3 X2) \Rightarrow \\
& (\forall X4. (m1_subset_1 X4 X2) \Rightarrow (\forall X5. (m1_subset_1 X5 X2) \Rightarrow \\
& (((X1 X3 X4) \wedge (X1 X4 X5)) \Rightarrow (X1 X3 X5)))))) \Rightarrow (\forall X3. (m1_subset_1 \\
& X3 X2) \Rightarrow (\neg(X3 \in X0) \wedge (\forall X4. (m1_subset_1 X4 X2) \Rightarrow (\neg(X4 \in X0) \wedge \\
& ((X1 X4 X3) \wedge (\forall X5. (m1_subset_1 X5 X2) \Rightarrow (((X5 \in X0) \wedge (X1 X5 X4)) \Rightarrow \\
& (X1 X4 X5))))))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v1_xboole_0 \\
& X0) \wedge (v4_finsub_1 X0)) \wedge (((\neg v1_xboole_0 X1) \wedge (v4_finsub_1 X1)) \wedge \\
& ((m1_subset_1 X2 (k2_zfmisc_1 X0 X1)) \wedge (m1_subset_1 X3 (k2_zfmisc_1 \\
& X0 X1)))))) \Rightarrow (r1_normform X0 X1 X2 X2)
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\
& X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1))
\end{aligned} \tag{6}$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k7_normform X0) \tag{7}$$

Assume the following.

$$\forall X0. (\neg v1_xboole_0 (k5_finsub_1 X0)) \wedge (v4_finsub_1 (k5_finsub_1 X0)) \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\
& X2 X0 X1) \Rightarrow (m1_subset_1 X2 X0))
\end{aligned} \tag{9}$$

Assume the following.

$$\forall X0. m1_subset_1 (k7_normform X0) (k1_zfmisc_1 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0))) \tag{10}$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \tag{11}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (m2_subset_1 X1 (k2_zfmisc_1 (k5_finsub_1 \\ & X0) (k5_finsub_1 X0)) (k7_normform X0)) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k5_finsub_1 (k7_normform X0))) \Rightarrow (\neg(X1 \in X2) \wedge (\forall X3. (m2_subset_1 \\ & X3 (k2_zfmisc_1 (k5_finsub_1 X0) (k5_finsub_1 X0)) (k7_normform \\ & X0)) \Rightarrow (\neg(r1_normform (k5_finsub_1 X0) (k5_finsub_1 X0) X3 X1) \wedge \\ & (X3 \in k9_normform X0 X2)))))) \end{aligned}$$