

t1_normform

(TMNA1pvmLy6Lx6E9xqKhDC19PJSkWcwfLmq)

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

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (k2_zfmisc_1 X0 X1)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (k2_zfmisc_1 X0 X1)) \Rightarrow (((k1_xtuple_0 X2 = k1_xtuple_0 \\ & X3) \wedge (k2_xtuple_0 X2 = k2_xtuple_0 X3)) \Rightarrow (X2 = X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 \\ & X1) \wedge (m1_subset_1 X2 (k2_zfmisc_1 X0 X1)))) \Rightarrow (k3_domain_1 X0 X1 \\ & X2 = k2_xtuple_0 X2) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 \\ & X1) \wedge (m1_subset_1 X2 (k2_zfmisc_1 X0 X1)))) \Rightarrow (k2_domain_1 X0 X1 \\ & X2 = k1_xtuple_0 X2) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (v4_finsub_1 X0)) \Rightarrow (\forall X1. \\ & ((\neg v1_xboole_0 X1) \wedge (v4_finsub_1 X1)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k2_zfmisc_1 X0 X1)) \Rightarrow (\forall X3.(m1_subset_1 X3 (k2_zfmisc_1 \\ & X0 X1)) \Rightarrow ((r1_normform X0 X1 X2 X3) \Leftrightarrow ((r1_tarski (k2_domain_1 X0 \\ & X1 X2) (k2_domain_1 X0 X1 X3)) \wedge (r1_tarski (k3_domain_1 X0 X1 X2) \\ & (k3_domain_1 X0 X1 X3))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1_tarSKI X0 X1) \wedge (r1_tarSKI X1 X0)) \quad (5)$$

Theorem 1

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