

t2_normform

(TMZFWGZ99aNcGzho1eb2C4a9vFGUQcjTTo7)

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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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X2 (k2_zfmisc_1 X0 X1)))) \Rightarrow (k3_domain_1 X0 X1 X2 = k2_xtuple_0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X2 (k2_zfmisc_1 X0 X1)))) \Rightarrow (k2_domain_1 X0 X1 X2 = k1_xtuple_0 X2) \quad (3)$$

Assume the following.

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

Theorem 1

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