

t2_domain_1

(TMHNC6JPFxmQgg74QuxRTBhLFVMyeB8dvxV)

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Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_relat_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 X0) \Rightarrow (((k1_xtuple_0 \\ & X1 = k1_xtuple_0 X2) \wedge (k2_xtuple_0 X1 = k2_xtuple_0 X2)) \Rightarrow (X1 = X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (2)$$

Assume the following.

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

Theorem 1

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