

t3_ranknull
(TMRpfGVg17LfJ4GSvZ77YVSq6UosAkk8ai)

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Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (\neg(\neg r1_xboole_0 X0 X1) \wedge (\forall X2. \neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2. (X2 \in X0) \wedge (X2 \in X1)) \wedge (r1_xboole_0 X0 X1)) \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0. (l1_struct_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ & \quad (u1_struct_0 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & \quad (u1_struct_0 X0))) \Rightarrow ((\neg(\neg r1_xboole_0 X1 X2) \wedge (\forall X3. (m1_subset_1 \\ & \quad X3 (u1_struct_0 X0)) \Rightarrow (\neg(X3 \in X1) \wedge (X3 \in X2)))) \wedge (\neg(\exists X3. (m1_subset_1 \\ & \quad X3 (u1_struct_0 X0)) \wedge ((X3 \in X1) \wedge (X3 \in X2))) \wedge (r1_xboole_0 X1 X2)))))) \end{aligned}$$