

t22_tex_4 (TMcpUn-
tiUbR291rGFWjsgL5DUSkDDo6EY3Q)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_tex_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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.

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

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((X2 \in k2_tex_4 X0 X1) \Leftrightarrow (k2_tex_4 X0 X2 = k2_tex_4 X0 X1)))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (\neg v1_xboole_0 X1)) \Rightarrow ((r1_subset_1 X0 X1) \Leftrightarrow (r1_xboole_0 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \wedge (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (\neg v1_xboole_0 (k2_tex_4 X0 X1)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((l1_pre_topc X0) \wedge (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k2_tex_4 X0 X1) (k1_zfmisc_1 (u1_struct_0 X0))) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ &(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ &(u1_struct_0 X0)) \Rightarrow ((r1_subset_1 (k2_tex_4 X0 X1) (k2_tex_4 X0 \\ &X2)) \vee (k2_tex_4 X0 X1 = k2_tex_4 X0 X2)))) \end{aligned}$$