

t33_borsuk_5

(TMQM1zySQZoHUsuFsroyKg9MErsJmmJYGHa)

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Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v1_connsp_1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ 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 $k1_xboole_0 : \iota$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_struct_0 : \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow ((v1_connsp_1 \\ X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ (\neg(v3_pre_topc X1 X0) \wedge ((v4_pre_topc X1 X0) \wedge ((X1 \neq k1_struct_0 \\ X0) \wedge (X1 \neq k2_struct_0 X0))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (2)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (k1_struct_0 X0 = k1_xboole_0) \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0.((v2_pre_topc X0) \wedge ((v1_connsp_1 X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow (\forall X1.((v3_pre_topc X1 X0) \wedge ((v4_pre_topc X1 X0) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow ((X1 = k1_xboole_0) \vee \\ (X1 = k2_struct_0 X0))) \end{aligned}$$