

t35_borsuk_1 (TMLXpmkEazzt- pdu5Gc2DK8RiFBRbwFth1gY)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_eqrel_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_borsuk_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_borsuk_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_borsuk_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge (m1_pre_topc X1 X0)) \Rightarrow (\\ & \forall X2.((\neg v1_xboole_0 X2) \wedge (m1_eqrel_1 X2 (u1_struct_0 X1))) \Rightarrow (\\ & \forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((\neg X3 \in u1_struct_0 \\ & X1) \Rightarrow (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 (k11_borsuk_1 \\ & X0 (k13_borsuk_1 X0 X1 X2))) (k12_borsuk_1 X0 (k13_borsuk_1 X0 X1 \\ & X2)) X3 = k6_domain_1 (u1_struct_0 X0) X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge (m1_eqrel_1 X1 (u1_struct_0 \\ & X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (X2 \in k3_funct_2 \\ & (u1_struct_0 X0) (u1_struct_0 (k11_borsuk_1 X0 X1)) (k12_borsuk_1 \\ & X0 X1) X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k6_domain_1 X0 X1 = k1_tarski X1) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge((v2_pre_topc \\ & X0)\wedge(l1_pre_topc X0)))\wedge(((\neg v2_struct_0 X1)\wedge(m1_pre_topc X1 \\ & X0))\wedge((\neg v1_xboole_0 X2)\wedge(m1_eqrel_1 X2 (u1_struct_0 X1))))))\Rightarrow \\ & ((\neg v1_xboole_0 (k13_borsuk_1 X0 X1 X2))\wedge(m1_eqrel_1 (k13_borsuk_1 \\ & X0 X1 X2) (u1_struct_0 X0))) \end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarski X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow (X2 = X0)) \tag{7}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge((v2_pre_topc X0)\wedge(l1_pre_topc \\ & X0)))\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge(m1_pre_topc X1 X0))\Rightarrow(\\ & \forall X2.((\neg v1_xboole_0 X2)\wedge(m1_eqrel_1 X2 (u1_struct_0 X1))))\Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0))\Rightarrow(\forall X4.(m1_subset_1 \\ & X4 (u1_struct_0 X0))\Rightarrow((k3_funct_2 (u1_struct_0 X0) (u1_struct_0 \\ & (k11_borsuk_1 X0 (k13_borsuk_1 X0 X1 X2))) (k12_borsuk_1 X0 (k13_borsuk_1 \\ & X0 X1 X2)) X3 = k3_funct_2 (u1_struct_0 X0) (u1_struct_0 (k11_borsuk_1 \\ & X0 (k13_borsuk_1 X0 X1 X2))) (k12_borsuk_1 X0 (k13_borsuk_1 X0 X1 \\ & X2)) X4)\Rightarrow((X3 \in u1_struct_0 X1)\vee(X3 = X4)))))) \end{aligned}$$