

t80_borsuk_6

(TMFt7RXzVnZsmiYmFpztJPLjq1MUwzE5ZY2)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_borsuk_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_funct_1 : \iota \Rightarrow o$ be given. Let $r1_borsuk_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_borsuk_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_borsuk_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_topmetr : \iota$ be given. Let $k2_borsuk_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_borsuk_6 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
 & \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
 & \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_borsuk_2 X3 \\
 & \quad X0 X1 X2) \Rightarrow (\forall X4. ((v3_funct_1 X4) \wedge (m1_borsuk_2 X4 X0 X2 X2)) \Rightarrow \\
 & \quad ((r1_borsuk_6 X0 X1 X2) \Rightarrow (r2_funct_2 (u1_struct_0 k5_topmetr) \\
 & \quad (u1_struct_0 X0) (k2_borsuk_6 X0 X1 X2 X3 k3_borsuk_6) (k1_borsuk_2 \\
 & \quad \quad X0 X1 X2 X2 X3 X4))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$(k1_funct_1 k3_borsuk_6 k6_numbers = k6_numbers) \wedge (k1_funct_1 \\
 k3_borsuk_6 np_1 = np_1) \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
& X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_borsuk_2 X3 \\
& X0 X1 X2) \Rightarrow (\forall X4.((v1_funct_1 X4) \wedge ((v1_funct_2 X4 (u1_struct_0 \\
& k5_topmetr) (u1_struct_0 k5_topmetr)) \wedge ((v5_pre_topc X4 k5_topmetr \\
& k5_topmetr) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\
& k5_topmetr) (u1_struct_0 k5_topmetr)))))) \Rightarrow (((k1_funct_1 X4 \\
& k6_numbers = k6_numbers) \wedge ((k1_funct_1 X4 np_1 = np_1) \wedge (r1_borsuk_6 \\
& X0 X1 X2))) \Rightarrow (r3_borsuk_2 X0 X1 X2 (k2_borsuk_6 X0 X1 X2 X3 X4) X3))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.(((v1_funct_1 X2) \wedge \\
& ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& X0 X1)))))) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 \\
& X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow ((r2_funct_2 X0 X1 X2 \\
& X3) \Leftrightarrow (X2 = X3))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& (v1_funct_1 k3_borsuk_6) \wedge ((v1_funct_2 k3_borsuk_6 (u1_struct_0 \\
& k5_topmetr) (u1_struct_0 k5_topmetr)) \wedge (v5_pre_topc k3_borsuk_6 \\
& k5_topmetr k5_topmetr))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.((l1_pre_topc X0) \wedge ((m1_subset_1 \\
& X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (\forall X3. \\
& (m1_borsuk_2 X3 X0 X1 X2) \Rightarrow ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (u1_struct_0 \\
& k5_topmetr) (u1_struct_0 X0)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (\\
& k2_zfmisc_1 (u1_struct_0 k5_topmetr) (u1_struct_0 X0))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& (v1_funct_1 k3_borsuk_6) \wedge ((v1_funct_2 k3_borsuk_6 (u1_struct_0 \\
& k5_topmetr) (u1_struct_0 k5_topmetr)) \wedge (m1_subset_1 k3_borsuk_6 \\
& (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 k5_topmetr) (u1_struct_0 \\
& k5_topmetr))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(((\neg v2_struct_0 \\
& X0)\wedge((v2_pre_topc X0)\wedge(l1_pre_topc X0))\wedge((m1_subset_1 X1 (\\
& u1_struct_0 X0))\wedge((m1_subset_1 X2 (u1_struct_0 X0))\wedge((m1_borsuk_2 \\
& X3 X0 X1 X2)\wedge((v1_funct_1 X4)\wedge((v1_funct_2 X4 (u1_struct_0 k5_topmetr) \\
& (u1_struct_0 k5_topmetr))\wedge((v5_pre_topc X4 k5_topmetr k5_topmetr)\wedge \\
& (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 k5_topmetr) \\
& (u1_struct_0 k5_topmetr))))))))))\Rightarrow(m1_borsuk_2 (k2_borsuk_6 \\
& X0 X1 X2 X3 X4) X0 X1 X2)
\end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\
& (((\neg v2_struct_0 X0)\wedge((v2_pre_topc X0)\wedge(l1_pre_topc X0))\wedge(\\
& (m1_subset_1 X1 (u1_struct_0 X0))\wedge((m1_subset_1 X2 (u1_struct_0 \\
& X0))\wedge((m1_subset_1 X3 (u1_struct_0 X0))\wedge((m1_borsuk_2 X4 X0 X1 \\
& X2)\wedge(m1_borsuk_2 X5 X0 X2 X3))))))\Rightarrow(m1_borsuk_2 (k1_borsuk_2 \\
& X0 X1 X2 X3 X4 X5) X0 X1 X3)
\end{aligned} \tag{9}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0)\wedge((v2_pre_topc X0)\wedge(l1_pre_topc \\
& X0)))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(\forall X3.(m1_borsuk_2 X3 \\
& X0 X1 X2)\Rightarrow(\forall X4.((v3_funct_1 X4)\wedge(m1_borsuk_2 X4 X0 X2 X2))\Rightarrow \\
& ((r1_borsuk_6 X0 X1 X2)\Rightarrow(r3_borsuk_2 X0 X1 X2 (k1_borsuk_2 X0 X1 \\
& X2 X2 X3 X4) X3))))))
\end{aligned}$$