

t32_borsuk_6 (TMHHsp- cisj665NExMaDLPT1UAKyEGKwjQG1)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_topmetr : \iota$ be given. Let $v2_compts_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_mcart_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_borsuk_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_borsuk_1 : \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v3_topmetr : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 k5_topmetr)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (u1_struct_0 k5_topmetr)) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2 (u1_struct_0 k5_topmetr)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\
& k5_topmetr)) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X2 X3)) \Rightarrow ((\neg \\
& v1_xboole_0 (k8_mcart_1 k1_numbers k1_numbers (k1_rcomp_1 X0 \\
& X1) (k1_rcomp_1 X2 X3))) \wedge ((v2_compts_1 (k8_mcart_1 k1_numbers \\
& k1_numbers (k1_rcomp_1 X0 X1) (k1_rcomp_1 X2 X3)) (k2_borsuk_1 \\
& k5_topmetr k5_topmetr)) \wedge (m1_subset_1 (k8_mcart_1 k1_numbers \\
& k1_numbers (k1_rcomp_1 X0 X1) (k1_rcomp_1 X2 X3)) (k1_zfmisc_1 \\
& (u1_struct_0 (k2_borsuk_1 k5_topmetr k5_topmetr))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\
& (v1_xreal_0 X2) \Rightarrow ((\neg r1_xxreal_0 X1 X2) \Rightarrow ((v1_xboole_0 (k1_rcomp_1 \\
& X1 X2)) \wedge ((v2_compts_1 (k1_rcomp_1 X1 X2) X0) \wedge (m1_subset_1 (k1_rcomp_1 \\
& X1 X2) (k1_zfmisc_1 (u1_struct_0 X0)))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow((v1_xboole_0\ k1_xboole_0)\wedge((v2_compts_1\ k1_xboole_0\ X0)\wedge(m1_subset_1\ k1_xboole_0\ (k1_zfmisc_1\ (u1_struct_0\ X0)))))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1\ X2\ (k1_zfmisc_1\ X0))\wedge(m1_subset_1\ X3\ (k1_zfmisc_1\ X1)))\Rightarrow(k8_mcart_1\ X0\ X1\ X2\ X3 = k2_zfmisc_1\ X2\ X3) \quad (5)$$

Assume the following.

$$k5_topmetr = k17_borsuk_1 \quad (6)$$

Assume the following.

$$(\neg v2_struct_0\ k17_borsuk_1)\wedge((v1_pre_topc\ k17_borsuk_1)\wedge(v2_pre_topc\ k17_borsuk_1)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(v1_xboole_0\ X0)\Rightarrow(v1_xboole_0\ (k2_zfmisc_1\ X0\ X1)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(v1_xboole_0\ X1)\Rightarrow(v1_xboole_0\ (k2_zfmisc_1\ X0\ X1)) \quad (9)$$

Assume the following.

$$v3_topmetr\ k17_borsuk_1 \quad (10)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow(l1_struct_0\ X0) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(((v2_pre_topc\ X0)\wedge(l1_pre_topc\ X0))\wedge((v2_pre_topc\ X1)\wedge(l1_pre_topc\ X1)))\Rightarrow((v1_pre_topc\ (k2_borsuk_1\ X0\ X1))\wedge((v2_pre_topc\ (k2_borsuk_1\ X0\ X1))\wedge(l1_pre_topc\ (k2_borsuk_1\ X0\ X1)))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0\ X0)\wedge(v1_xreal_0\ X1))\Rightarrow(m1_subset_1\ (k1_rcomp_1\ X0\ X1)\ (k1_zfmisc_1\ k1_numbers)) \quad (13)$$

Assume the following.

$$l1_pre_topc \ k17_borsuk_1 \tag{14}$$

Assume the following.

$$\forall X0.((v3_topmetr \ X0) \wedge (l1_struct_0 \ X0)) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (u1_struct_0 \ X0)) \Rightarrow (v1_xreal_0 \ X1)) \tag{15}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 \ X0 \ (u1_struct_0 \ k5_topmetr)) \Rightarrow (\forall X1. \\ & (m1_subset_1 \ X1 \ (u1_struct_0 \ k5_topmetr)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 \ (u1_struct_0 \ k5_topmetr)) \Rightarrow (\forall X3.(m1_subset_1 \ X3 \ (u1_struct_0 \\ & k5_topmetr)) \Rightarrow ((v2_compts_1 \ (k8_mcart_1 \ k1_numbers \ k1_numbers \\ & (k1_rcomp_1 \ X0 \ X1) \ (k1_rcomp_1 \ X2 \ X3)) \ (k2_borsuk_1 \ k5_topmetr \\ & k5_topmetr)) \wedge (m1_subset_1 \ (k8_mcart_1 \ k1_numbers \ k1_numbers \\ & (k1_rcomp_1 \ X0 \ X1) \ (k1_rcomp_1 \ X2 \ X3)) \ (k1_zfmisc_1 \ (u1_struct_0 \\ & (k2_borsuk_1 \ k5_topmetr \ k5_topmetr)))))))))) \end{aligned}$$