

t3_borsuk_6 (TM- PDM1rk8mSCdxNFHnwuMoLQmvyTmDmy6S)

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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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_borsuk_1 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $np_0 : \iota$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Let $v3_membered : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 k6_numbers \\ & X2)) \Rightarrow (r1_xxreal_0 (k3_xcmplx_0 X0 X2) (k3_xcmplx_0 X1 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (((r1_xxreal_0 k6_numbers X0) \wedge (r1_xxreal_0 X0 np_1)) \Leftrightarrow (X0 \in u1_struct_0 k17_borsuk_1)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (5)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_2) \wedge (m2_subset_1 \ np_2 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_2 \ k5_numbers) \wedge (m1_subset_1 \ np_2 \ k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & (m2_subset_1 \ np_0 \ k1_numbers \ k5_numbers) \wedge ((m1_subset_1 \ np_0 \\ & \quad k5_numbers) \wedge (m1_subset_1 \ np_0 \ k1_numbers)) \end{aligned} \quad (8)$$

Assume the following.

$$v1_xboole_0 \ np_0 \quad (9)$$

Assume the following.

$$k3_xcmplx_0 \ (k7_xcmplx_0 \ np_1 \ np_2) \ np_2 = np_1 \quad (10)$$

Assume the following.

$$k3_xcmplx_0 \ np_1 \ (k7_xcmplx_0 \ np_1 \ np_2) = k7_xcmplx_0 \ np_1 \ np_2 \quad (11)$$

Assume the following.

$$k3_xcmplx_0 \ np_0 \ np_2 = np_0 \quad (12)$$

Assume the following.

$$r1_xxreal_0 \ np_0 \ np_2 \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \\ & \quad X1)) \Rightarrow (k8_real_1 \ X0 \ X1 = k3_xcmplx_0 \ X0 \ X1) \end{aligned} \quad (14)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (15)$$

Assume the following.

$$k5_topmetr = k17_borsuk_1 \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \\ & \quad X1)) \Rightarrow (k10_real_1 \ X0 \ X1 = k7_xcmplx_0 \ X0 \ X1) \end{aligned} \quad (17)$$

Assume the following.

$$(\neg v2_struct_0\ k17_borsuk_1) \wedge ((v1_pre_topc\ k17_borsuk_1) \wedge (v2_pre_topc\ k17_borsuk_1)) \quad (18)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xreal_0\ X0) \wedge (v1_xreal_0\ X1)) \Rightarrow (v1_xreal_0\ (k7_xcmplx_0\ X0\ X1)) \quad (19)$$

Assume the following.

$$\forall X0. ((v3_topmetr\ X0) \wedge (l1_struct_0\ X0)) \Rightarrow (v3_membered\ (u1_struct_0\ X0)) \quad (20)$$

Assume the following.

$$v3_topmetr\ k17_borsuk_1 \quad (21)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0\ X0) \wedge (l1_struct_0\ X0)) \Rightarrow (\neg v1_xboole_0\ (u1_struct_0\ X0)) \quad (22)$$

Assume the following.

$$\forall X0. (l1_pre_topc\ X0) \Rightarrow (l1_struct_0\ X0) \quad (23)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1\ X0\ k1_numbers) \wedge (v1_xreal_0\ X1)) \Rightarrow (m1_subset_1\ (k8_real_1\ X0\ X1)\ k1_numbers) \quad (24)$$

Assume the following.

$$l1_pre_topc\ k17_borsuk_1 \quad (25)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xcmplx_0\ X0) \wedge (v1_xcmplx_0\ X1)) \Rightarrow (k3_xcmplx_0\ X0\ X1 = k3_xcmplx_0\ X1\ X0) \quad (26)$$

Assume the following.

$$\forall X0. (v1_xreal_0\ X0) \Rightarrow (v1_xcmplx_0\ X0) \quad (27)$$

Assume the following.

$$\forall X0. (m1_subset_1\ X0\ k1_numbers) \Rightarrow (v1_xreal_0\ X0) \quad (28)$$

Assume the following.

$$\forall X0. (v3_membered\ X0) \Rightarrow (\forall X1. (m1_subset_1\ X1\ X0) \Rightarrow (v1_xreal_0\ X1)) \quad (29)$$

Theorem 1

$$\forall X0. (m1_subset_1\ X0\ (u1_struct_0\ k5_topmetr)) \Rightarrow ((r1_xreal_0\ X0\ (k10_real_1\ np_1\ np_2)) \Rightarrow (m1_subset_1\ (k8_real_1\ np_2\ X0)\ (u1_struct_0\ k5_topmetr)))$$