

t14_borsuk_5

(TMbWURfFTh2kf6EvEXqDnsyr6J9Vgu6UkrX)

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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 $k8_metric_1 : \iota$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_metric_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k18_complex1 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k16_complex1 : \iota \Rightarrow \iota$ be given. Let $v1_metric_1 : \iota \Rightarrow o$ be given. Let $v3_topmetr : \iota \Rightarrow o$ be given. Let $v6_metric_1 : \iota \Rightarrow o$ be given. Let $v7_metric_1 : \iota \Rightarrow o$ be given. Let $v8_metric_1 : \iota \Rightarrow o$ be given. Let $v9_metric_1 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $l1_metric_1 : \iota \Rightarrow o$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xreal_0 \\ X0 X1) \Rightarrow (r1_xreal_0 k6_numbers (k6_xcmplx_0 X1 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_struct_0 k8_metric_1)) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 k8_metric_1)) \Rightarrow (\forall X2.(v1_xreal_0 \\ X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (((X2 = X0) \wedge (X3 = X1)) \Rightarrow (k4_metric_1 \\ k8_metric_1 X0 X1 = k18_complex1 (k6_xcmplx_0 X2 X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k18_complex1 X0 = k16_complex1 X0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (v1_xreal_0 \\ (k6_xcmplx_0 X0 X1)) \quad (4)$$

Assume the following.

$$(v1_metric_1 k8_metric_1) \wedge (v3_topmetr k8_metric_1) \quad (5)$$

Assume the following.

$$(v1_metric_1 \ k8_metric_1) \wedge ((v6_metric_1 \ k8_metric_1) \wedge ((v7_metric_1 \ k8_metric_1) \wedge ((v8_metric_1 \ k8_metric_1) \wedge (v9_metric_1 \ k8_metric_1)))) \quad (6)$$

Assume the following.

$$\forall X0. ((v3_topmetr \ X0) \wedge (l1_struct_0 \ X0)) \Rightarrow (v3_membered \ (u1_struct_0 \ X0)) \quad (7)$$

Assume the following.

$$\forall X0. (l1_metric_1 \ X0) \Rightarrow (l1_struct_0 \ X0) \quad (8)$$

Assume the following.

$$(v1_metric_1 \ k8_metric_1) \wedge (l1_metric_1 \ k8_metric_1) \quad (9)$$

Assume the following.

$$\forall X0. (v1_xreal_0 \ X0) \Rightarrow (((r1_xxreal_0 \ k6_numbers \ X0) \Rightarrow (k16_complex1 \ X0 = X0)) \wedge ((\neg r1_xxreal_0 \ k6_numbers \ X0) \Rightarrow (k16_complex1 \ X0 = k4_xcmplx_0 \ X0))) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((v8_metric_1 \ X0) \wedge (l1_metric_1 \ X0)) \wedge ((m1_subset_1 \ X1 \ (u1_struct_0 \ X0)) \wedge (m1_subset_1 \ X2 \ (u1_struct_0 \ X0)))) \Rightarrow (k4_metric_1 \ X0 \ X1 \ X2 = k4_metric_1 \ X0 \ X2 \ X1) \quad (11)$$

Assume the following.

$$\forall X0. (v1_xreal_0 \ X0) \Rightarrow (v1_xcmplx_0 \ X0) \quad (12)$$

Assume the following.

$$\forall X0. (v3_membered \ X0) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ X0) \Rightarrow (v1_xreal_0 \ X1)) \quad (13)$$

Theorem 1

$$\forall X0. (m1_subset_1 \ X0 \ (u1_struct_0 \ k8_metric_1)) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (u1_struct_0 \ k8_metric_1)) \Rightarrow ((r1_xxreal_0 \ X0 \ X1) \Rightarrow (k4_metric_1 \ k8_metric_1 \ X0 \ X1 = k6_xcmplx_0 \ X1 \ X0)))$$