

t61_topreal9 (TMH- NTAw1QesjR9o4nCxuKq2bJdQ3sycrWcD)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k5_jgraph_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k14_euclid : \iota \Rightarrow \iota$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_metric_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k3_topreal9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (u1_struct_0 (k15_euclid X0) = u1_struct_0 (k14_euclid X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k14_euclid \\ & np_2)))) \Rightarrow ((X3 = k19_euclid X0 X1) \Rightarrow (k11_metric_1 (k14_euclid np_2) \\ & X3 X2 = k5_jgraph_6 X0 X1 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(v1_xreal_0 \\ & X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid X0))) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\\ & \forall X4.(m1_subset_1 X4 (u1_struct_0 (k15_euclid X0))) \Rightarrow ((\\ & (X2 \in k3_topreal9 X0 X3 X1) \wedge (X4 \in k3_topreal9 X0 X3 X1)) \Rightarrow (k9_subset_1 \\ & (u1_struct_0 (k15_euclid X0)) (k1_rltopsp1 (k15_euclid X0) X2 \\ & X4) (k3_topreal9 X0 X3 X1) = k2_tarski X2 X4)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(v1_xreal_0 \\ & X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid X0))) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k14_euclid X0))) \Rightarrow (\\ & (X2 = X3) \Rightarrow (k11_metric_1 (k14_euclid X0) X3 X1 = k3_topreal9 X0 X2 \\ & X1)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k19_euclid X0 X1) (u1_struct_0 (k15_euclid np_2))) \quad (8)$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid \\ & np_2))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k15_euclid \\ & np_2))) \Rightarrow (((X3 \in k5_jgraph_6 X0 X1 X2) \wedge (X4 \in k5_jgraph_6 X0 X1 X2)) \Rightarrow \\ & (k9_subset_1 (u1_struct_0 (k15_euclid np_2)) (k1_rltopsp1 (\\ & k15_euclid np_2) X3 X4) (k5_jgraph_6 X0 X1 X2) = k2_tarSKI X3 X4)))))) \end{aligned}$$