

t57_topreal9
(TMQREc4GwPwJByrmTyt2txn2Qebd87X4Qt9)

October 27, 2020

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 $k7_jgraph_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k14_euclid : \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ 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 $l1_metric_1 : \iota \Rightarrow o$ be given. Let $k10_metric_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v1_metric_1 : \iota \Rightarrow o$ 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.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge (\\ (v6_metric_1 X1) \wedge (v7_metric_1 X1) \wedge (v8_metric_1 X1) \wedge (v9_metric_1 \\ X1) \wedge (l1_metric_1 X1)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ X1)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X1)) \Rightarrow (\forall X4. \\ (m1_subset_1 X4 (u1_struct_0 X1)) \Rightarrow (\neg (X2 \neq X3) \wedge ((X2 \in k10_metric_1 \\ X1 X4 X0) \wedge ((X3 \in k10_metric_1 X1 X4 X0) \wedge (r1_xxreal_0 X0 k6_numbers)))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ (v1_xreal_0 X2) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k14_euclid \\ np_2)))) \Rightarrow ((X3 = k19_euclid X0 X1) \Rightarrow (k10_metric_1 (k14_euclid np_2) \\ X3 X2 = k7_jgraph_6 X0 X1 X2)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$v6_membered\ k4_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow & ((\neg v2_struct_0\ (k14_euclid\ X0)) \wedge \\ & ((v1_metric_1\ (k14_euclid\ X0)) \wedge (v6_metric_1\ (k14_euclid\ X0)) \wedge \\ & ((v7_metric_1\ (k14_euclid\ X0)) \wedge (v8_metric_1\ (k14_euclid\ X0)) \wedge \\ & (v9_metric_1\ (k14_euclid\ X0)))))) \end{aligned} \quad (7)$$

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.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow & ((v1_metric_1\ (k14_euclid\ X0)) \wedge \\ & ((v6_metric_1\ (k14_euclid\ X0)) \wedge (v7_metric_1\ (k14_euclid\ X0)) \wedge \\ & ((v8_metric_1\ (k14_euclid\ X0)) \wedge (v9_metric_1\ (k14_euclid\ X0)) \wedge \\ & (l1_metric_1\ (k14_euclid\ X0)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(v6_membered\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow (v7_ordinal1\ X1)) \quad (10)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_xreal_0\ X0) \Rightarrow & (\forall X1.(v1_xreal_0\ X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0\ X2) \Rightarrow (\forall X3.(m1_subset_1\ X3\ (u1_struct_0\ (k15_euclid \\ & np_2)))) \Rightarrow (\forall X4.(m1_subset_1\ X4\ (u1_struct_0\ (k15_euclid \\ & np_2)))) \Rightarrow (\neg(X3 \neq X4) \wedge ((X3 \in k7_jgraph_6\ X0\ X1\ X2) \wedge ((X4 \in k7_jgraph_6 \\ & X0\ X1\ X2) \wedge (r1_xreal_0\ X2\ k6_numbers)))))) \end{aligned}$$