

t23_euclid_9

(TMVSMo295Ju6j3kkHdjngngqVQiDz3P6nZvS)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_pcomps_1 : \iota \Rightarrow \iota$ be given. Let $k14_euclid : \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_euclid_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_metric_1 : \iota \Rightarrow o$ be given. Let $l1_metric_1 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k9_metric_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_metric_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v6_metric_1 X0) \wedge (l1_metric_1 X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (v1_xreal_0 X2) \Rightarrow ((\neg r1_xxreal_0 X2 k6_numbers) \Rightarrow (X1 \in k9_metric_1 X0 X1 X2)))))) \quad (2)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k14_euclid X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 (k14_euclid X0))) \Rightarrow (\neg (X2 \in k9_metric_1 (k14_euclid X0) X3 X1) \wedge (\forall X4. ((\neg v1_xboole_0 X4) \wedge (m1_subset_1 X4 k5_numbers)) \Rightarrow (\neg r1_tarski (k4_euclid_9 X0 X2 (k13_complex1 np_1 X4)) (k9_metric_1 (k14_euclid X0) X3 X1)))))))))) \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v6_metric_1 X0) \wedge ((v7_metric_1 \\
& X0) \wedge ((v8_metric_1 X0) \wedge ((v9_metric_1 X0) \wedge (l1_metric_1 X0)))))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k3_pcomps_1 \\
& X0)))) \Rightarrow ((v3_pre_topc X1 (k3_pcomps_1 X0)) \Leftrightarrow (\forall X2.(m1_subset_1 \\
& X2 (u1_struct_0 X0)) \Rightarrow (\neg(X2 \in X1) \wedge (\forall X3.(v1_xreal_0 X3) \Rightarrow \\
& (\neg(\neg r1_xreal_0 X3 k6_numbers) \wedge (r1_tarski (k9_metric_1 X0 X2 \\
& X3) X1))))))))) \tag{4}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow ((\neg v2_struct_0 (k14_euclid X0)) \wedge \\
& ((v1_metric_1 (k14_euclid X0)) \wedge ((v6_metric_1 (k14_euclid X0)) \wedge \\
& ((v7_metric_1 (k14_euclid X0)) \wedge ((v8_metric_1 (k14_euclid X0)) \wedge \\
& (v9_metric_1 (k14_euclid X0))))))))) \tag{5}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow ((v1_metric_1 (k14_euclid X0)) \wedge \\
& ((v6_metric_1 (k14_euclid X0)) \wedge ((v7_metric_1 (k14_euclid X0)) \wedge \\
& ((v8_metric_1 (k14_euclid X0)) \wedge ((v9_metric_1 (k14_euclid X0)) \wedge \\
& (l1_metric_1 (k14_euclid X0))))))))) \tag{6}
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\
& (u1_struct_0 (k3_pcomps_1 (k14_euclid X0)))) \Rightarrow ((v3_pre_topc \\
& X1 (k3_pcomps_1 (k14_euclid X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
& (u1_struct_0 (k14_euclid X0)) \Rightarrow (\neg(X2 \in X1) \wedge (\forall X3.((\neg v1_xboole_0 \\
& X3) \wedge (m1_subset_1 X3 k5_numbers)) \Rightarrow (\neg r1_tarski (k4_euclid_9 X0 \\
& X2 (k13_complex1 np_1 X3) X1)))))))))
\end{aligned}$$