

t45_euclid_3 (TMUaBStD- PrVtfE8KdWRERAhxacKEc1WYJy7)

October 27, 2020

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 $k23_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_euclid_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ 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 $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v5_rltopsp1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\neg(X0 \neq k4_struct_0 (k15_euclid np_2)) \wedge ((X1 \neq k4_struct_0 (k15_euclid \\
& np_2)) \wedge (\neg(k23_rvsum_1 X0 X1 = k6_numbers) \Leftrightarrow ((k4_euclid_3 X0 (\\
& k4_struct_0 (k15_euclid np_2)) X1 = k10_real_1 k32_sin_cos np_2) \vee \\
& (k4_euclid_3 X0 (k4_struct_0 (k15_euclid np_2)) X1 = k8_real_1 \\
& (k10_real_1 np_3 np_2) k32_sin_cos)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& (k15_euclid X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (\\
& k15_euclid X0))) \Rightarrow ((k5_algstr_0 (k15_euclid X0) X1 X2 = k4_struct_0 \\
& (k15_euclid X0)) \Rightarrow (X1 = X2))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (k4_euclid_3 X0 X1 X2 = k4_euclid_3 (k5_algstr_0 (k15_euclid np_2) \\
& X0 X1) (k4_struct_0 (k15_euclid np_2)) (k5_algstr_0 (k15_euclid \\
& np_2) X2 X1)))) \quad (3)
\end{aligned}$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$v6_membered k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.(l1_rlvect_1 X0) \Rightarrow (l2_algstr_0 X0) \quad (7)$$

Assume the following.

$$\forall X0.(l1_rltopsp1 X0) \Rightarrow ((l1_rlvect_1 X0) \wedge (l1_pre_topc X0)) \quad (8)$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.((l2_algstr_0 X0) \wedge ((m1_subset_1 \\
& X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 \\
& (k5_algstr_0 X0 X1 X2) (u1_struct_0 X0)) \quad (9)
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow ((v5_rltopsp1 (k15_euclid X0)) \wedge \\
& (l1_rltopsp1 (k15_euclid X0))) \quad (10)
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow \\
& (v7_ordinal1 X1)) \quad (11)
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\neg(X0 \neq X1) \wedge ((X2 \neq X1) \wedge (\neg(k23_rvsum_1 (k5_algstr_0 (k15_euclid \\
& np_2) X0 X1) (k5_algstr_0 (k15_euclid np_2) X2 X1) = k6_numbers) \Leftrightarrow \\
& ((k4_euclid_3 X0 X1 X2 = k10_real_1 k32_sin_cos np_2) \vee (k4_euclid_3 \\
& X0 X1 X2 = k8_real_1 (k10_real_1 np_3 np_2) k32_sin_cos))))))
\end{aligned}$$