

t36_euclid_3

(TMNQcJfDihLV3LgFrFar23LJnK2C55pLKDi)

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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 $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k4_euclid_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k3_euclid_3 : \iota \Rightarrow \iota$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_numbers : \iota$ be given. Let $k4_complex2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_comptrig : \iota \Rightarrow \iota$ be given. Let $k11_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_euclid_3 : \iota \Rightarrow \iota$ 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 $l1_rlvect_1 : \iota \Rightarrow o$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v5_rltopsp1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k2_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k2_numbers) \Rightarrow ((k4_complex2 \\ & X0 X1 X2 = k6_numbers) \Rightarrow ((k1_comptrig (k11_complex1 X0 X1) = k1_comptrig \\ & (k11_complex1 X2 X1)) \wedge (k4_complex2 X2 X1 X0 = k6_numbers)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (k2_euclid_3 (k5_algstr_0 (k15_euclid np_2) X0 X1) = k11_complex1 \\ & (k2_euclid_3 X0) (k2_euclid_3 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$v6_membered\ k4_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.(l1_rlvect_1\ X0) \Rightarrow (l2_algstr_0\ X0) \quad (6)$$

Assume the following.

$$\forall X0.(l1_rltopsp1\ X0) \Rightarrow ((l1_rlvect_1\ X0) \wedge (l1_pre_topc\ X0)) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((l2_algstr_0\ X0) \wedge ((m1_subset_1 \\ & X1\ (u1_struct_0\ X0)) \wedge (m1_subset_1\ X2\ (u1_struct_0\ X0)))) \Rightarrow (m1_subset_1 \\ & (k5_algstr_0\ X0\ X1\ X2)\ (u1_struct_0\ X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow \\ & (m1_subset_1\ (k2_euclid_3\ X0)\ k2_numbers) \end{aligned} \quad (9)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow \\ & (\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow \\ & (k4_euclid_3\ X0\ X1\ X2 = k4_complex2\ (k2_euclid_3\ X0)\ (k2_euclid_3 \\ & X1)\ (k2_euclid_3\ X2)))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow \\ & (k3_euclid_3\ X0 = k1_comptrig\ (k2_euclid_3\ X0)) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v6_membered\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow \\ & (v7_ordinal1\ X1)) \end{aligned} \quad (13)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow \\ & (\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ (k15_euclid\ np_2))) \Rightarrow \\ & ((k4_euclid_3\ X0\ X1\ X2 = k6_numbers) \Rightarrow ((k3_euclid_3\ (k5_algstr_0 \\ & (k15_euclid\ np_2)\ X0\ X1) = k3_euclid_3\ (k5_algstr_0\ (k15_euclid \\ & np_2)\ X2\ X1)) \wedge (k4_euclid_3\ X2\ X1\ X0 = k6_numbers)))))) \end{aligned}$$