

t9_euclid_5 (TMdHrAHWE- FyCH13pY5EwhdK1jFADkSqmUoh)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k1_euclid_5 : \iota \Rightarrow \iota$ be given. Let $k1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_euclid_5 : \iota \Rightarrow \iota$ be given. Let $k3_euclid_5 : \iota \Rightarrow \iota$ be given. Let $k4_euclid_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (u1_struct_0 (k15_euclid np_3))) \Rightarrow (k1_rlvect_1 (k15_euclid \\ & np_3) X1 X0 = k4_euclid_5 (k8_real_1 X0 (k1_euclid_5 X1)) (k8_real_1 \\ & X0 (k2_euclid_5 X1)) (k8_real_1 X0 (k3_euclid_5 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow ((k1_euclid_5 \\ & (k4_euclid_5 X0 X1 X2) = X0) \wedge ((k2_euclid_5 (k4_euclid_5 X0 X1 X2) = \\ & X1) \wedge (k3_euclid_5 (k4_euclid_5 X0 X1 X2) = X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k8_real_1 X0 X1) k1_numbers) \quad (3)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_3))) \Rightarrow (m1_subset_1 (k3_euclid_5 X0) k1_numbers) \quad (4)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_3))) \Rightarrow (m1_subset_1 (k2_euclid_5 X0) k1_numbers) \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_3))) \Rightarrow (m1_subset_1 (k1_euclid_5 X0) k1_numbers) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (u1_struct_0 (k15_euclid np_3))) \Rightarrow ((k1_euclid_5 (k1_rlvect_1 \\ & (k15_euclid np_3) X1 X0) = k8_real_1 X0 (k1_euclid_5 X1)) \wedge ((k2_euclid_5 \\ & (k1_rlvect_1 (k15_euclid np_3) X1 X0) = k8_real_1 X0 (k2_euclid_5 \\ & X1)) \wedge (k3_euclid_5 (k1_rlvect_1 (k15_euclid np_3) X1 X0) = k8_real_1 \\ & X0 (k3_euclid_5 X1)))))) \end{aligned}$$