

l12_euclid_8 (TMN- WFW1tvyZjbK3EK9zjLgkc6E8gK4GGHxA)

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Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k8_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid \\ & X0)) \Rightarrow (\forall X4.(m2_finseq_2 X4 k1_numbers (k1_euclid X0)) \Rightarrow \\ & (k8_euclid X0 (k7_euclid X0 X1 X2) (k7_euclid X0 X3 X4) = k7_euclid \\ & X0 (k8_euclid X0 X1 X3) (k8_euclid X0 X2 X4)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_3) \wedge (m2_subset_1 np_3 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_3 k5_numbers) \wedge (m1_subset_1 np_3 k1_numbers)) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_finseq_2 X0 k1_numbers (k1_euclid np_3)) \Rightarrow (\forall X1. \\ & (m2_finseq_2 X1 k1_numbers (k1_euclid np_3)) \Rightarrow (\forall X2.(m2_finseq_2 \\ & X2 k1_numbers (k1_euclid np_3)) \Rightarrow (\forall X3.(m2_finseq_2 X3 \\ & k1_numbers (k1_euclid np_3)) \Rightarrow (k8_euclid np_3 (k7_euclid np_3 \\ & X0 X1) (k7_euclid np_3 X2 X3) = k7_euclid np_3 (k8_euclid np_3 \\ & X0 X2) (k8_euclid np_3 X1 X3)))))) \end{aligned}$$