

t70_euclidlp

(TMKq2MQxxrq24U2A2VWVw56TpfSXB6M7H8u)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. 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 $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_euclidlp : \iota \Rightarrow \iota$ be given. Let $k8_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_euclid_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_euclid_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X3.(m2_subset_1 X3 (k1_zfmisc_1 (k1_euclid \\ & X0)) (k1_euclidlp X0)) \Rightarrow (((X1 \in X3) \wedge (X2 \in X3)) \Rightarrow ((X1 = X2) \vee ((k2_euclid_4 \\ & X0 X1 X2 = X3) \wedge (v1_euclid_4 X3 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid \\ & X0)) \Rightarrow (\forall X4.(m2_finseq_2 X4 k1_numbers (k1_euclid X0)) \Rightarrow \\ & (\neg(X1 \in k2_euclid_4 X0 X3 X4) \wedge ((X2 \in k2_euclid_4 X0 X3 X4) \wedge (\forall X5. \\ & (m1_subset_1 X5 k1_numbers) \Rightarrow (k8_euclid X0 X2 X1 \neq k9_euclid X0 (\\ & k8_euclid X0 X4 X3) X5)))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\ & X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\ & (k1_euclid X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid \\ & X0)) \Rightarrow (\forall X4.(m2_subset_1 X4 (k1_zfmisc_1 (k1_euclid X0)) \\ & (k1_euclidlp X0)) \Rightarrow (\neg(X1 \in X4) \wedge ((X2 \in X4) \wedge ((X3 \in X4) \wedge ((X1 \neq X2) \wedge (\\ & \forall X5.(m1_subset_1 X5 k1_numbers) \Rightarrow (k8_euclid X0 X3 X1 \neq k9_euclid \\ & X0 (k8_euclid X0 X2 X1) X5)))))))) \end{aligned}$$