

t88_euclidlp
(TMcqSrZPECQ27LESxPoJvg85AvFfigkhUfu)

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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 $k4_euclidlp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k7_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\
& X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\
& (k1_euclid X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid \\
& X0)) \Rightarrow (k4_euclidlp X0 X1 X2 X3 = ReplSep (toset (\lambda X4 : \iota.m2_finseq_2 \\
& X4 k1_numbers (k1_euclid X0))) (\lambda X4 : \iota.\exists X5.(m1_subset_1 \\
& X5 k1_numbers) \wedge (\exists X6.(m1_subset_1 X6 k1_numbers) \wedge (\exists X7. \\
& (m1_subset_1 X7 k1_numbers) \wedge ((k7_real_1 (k7_real_1 X5 X6) X7 = \\
& np_1) \wedge (X4 = k7_euclid X0 (k7_euclid X0 (k9_euclid X0 X1 X5) (k9_euclid \\
& X0 X2 X6)) (k9_euclid X0 X3 X7)))))) (\lambda X4 : \iota.X4))))))
\end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m2_finseq_2 \\
& X1 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers \\
& (k1_euclid X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid \\
& X0)) \Rightarrow (\forall X4.(m2_finseq_2 X4 k1_numbers (k1_euclid X0)) \Rightarrow \\
& ((X1 \in k4_euclidlp X0 X2 X3 X4) \Leftrightarrow (\exists X5.(m1_subset_1 X5 k1_numbers) \wedge \\
& (\exists X6.(m1_subset_1 X6 k1_numbers) \wedge (\exists X7.(m1_subset_1 \\
& X7 k1_numbers) \wedge ((k7_real_1 (k7_real_1 X5 X6) X7 = np_1) \wedge (X1 = k7_euclid \\
& X0 (k7_euclid X0 (k9_euclid X0 X2 X5) (k9_euclid X0 X3 X6)) (k9_euclid \\
& X0 X4 X7))))))))))
\end{aligned}$$