

t95\_euclidlp  
(TMEyKZi2mYrAKo59DCWa6HPKMGbdnLQE5jf)

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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  $k5\_euclidlp : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_euclid\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_euclidlp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2 \\ & X1 k1\_numbers (k1\_euclid X0)) \Rightarrow (\forall X2.(m2\_finseq\_2 X2 k1\_numbers \\ & (k1\_euclid X0)) \Rightarrow (\forall X3.(m2\_finseq\_2 X3 k1\_numbers (k1\_euclid \\ & X0)) \Rightarrow ((r1\_tarski (k2\_euclid\_4 X0 X1 X2) (k4\_euclidlp X0 X1 X2 X3)) \wedge \\ & ((r1\_tarski (k2\_euclid\_4 X0 X2 X3) (k4\_euclidlp X0 X1 X2 X3)) \wedge (r1\_tarski \\ & (k2\_euclid\_4 X0 X3 X1) (k4\_euclidlp X0 X1 X2 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2 \\ & X1 k1\_numbers (k1\_euclid X0)) \Rightarrow (\forall X2.(m2\_finseq\_2 X2 k1\_numbers \\ & (k1\_euclid X0)) \Rightarrow (\forall X3.(m2\_finseq\_2 X3 k1\_numbers (k1\_euclid \\ & X0)) \Rightarrow (\forall X4.(m2\_subset\_1 X4 (k1\_zfmisc\_1 (k1\_euclid X0)) \\ & (k5\_euclidlp X0)) \Rightarrow (((X1 \in X4) \wedge ((X2 \in X4) \wedge (X3 \in X4))) \Rightarrow (r1\_tarski \\ & (k4\_euclidlp X0 X1 X2 X3) X4)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (3)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2 \\ & X1 k1\_numbers (k1\_euclid X0)) \Rightarrow (\forall X2.(m2\_finseq\_2 X2 k1\_numbers \\ & (k1\_euclid X0)) \Rightarrow (\forall X3.(m2\_subset\_1 X3 (k1\_zfmisc\_1 (k1\_euclid \\ & X0)) (k5\_euclidlp X0)) \Rightarrow (((X1 \in X3) \wedge (X2 \in X3)) \Rightarrow (r1\_tarski (k2\_euclid\_4 \\ & X0 X1 X2) X3)))) \end{aligned}$$