# t94_euclidlp (TMQAMhuUXfqFUytqHKL-maFThbmfEGh8494v)

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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 $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X4.(m2\_finseq\_2\ X4\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X5.(m2\_finseq\_2\ X5\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (((X1 \in k4\_euclidlp\ X0\ X2\ X3\ X4) \wedge (X5 \in k4\_euclidlp\ X0\ X2\ X3\ X4)) \Rightarrow (r1\_tarski\ (k2\_euclid\_4\ X0\ X1\ X5)\ (k4\_euclidlp\ X0\ X2\ X3\ X4)))))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow ((X1 \in k4\_euclidlp\ X0\ X1\ X2\ X3) \wedge ((X2 \in k4\_euclidlp\ X0\ X1\ X2\ X3) \wedge (X3 \in k4\_euclidlp\ X0\ X1\ X2\ X3)))))) \tag{2}$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow ((r1\_tarski\ (k2\_euclid\_4\ X0\ X1\ X2)\ (k4\_euclidlp\ X0\ X1\ X2\ X3)) \wedge ((r1\_tarski\ (k2\_euclid\_4\ X0\ X2\ X3)\ (k4\_euclidlp\ X0\ X1\ X2\ X3)) \wedge (r1\_tarski\ (k2\_euclid\_4\ X0\ X3\ X1)\ (k4\_euclidlp\ X0\ X1\ X2\ X3)))))))$$