t81_euclidlp (TMEyHpzTqpQmHFYvqvxNxZnZoqXdwzcMGUe)

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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 $r6\_euclidlp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_euclid\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\neg(v1\_euclid\_4\ X1\ X0) \wedge ((v1\_euclid\_4\ X2\ X0) \wedge ((X1 \neq X2) \wedge (\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\neg(X3 \in X1) \wedge (\neg X3 \in X2)))))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\neg(r6\_euclidlp\ X0\ X1\ X2) \wedge (X1 = X2)))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow ((r6\_euclidlp\ X0\ X1\ X2) \Rightarrow ((v1\_euclid\_4\ X1\ X0) \wedge (v1\_euclid\_4\ X2\ X0))))) \tag{3}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\forall X3.(m2\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\neg(X1 \in X3) \wedge ((r6\_euclidlp\ X0\ X2\ X3) \wedge (\forall X4.(m2\_finseq\_2\ X4\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\neg(X1 \neq X4) \wedge ((X4 \in X2) \wedge (\neg X4 \in X3)))))))))$$