

# t37\_euclidlp (TMLUEXQcWzjvSLk- wdLd9ojmaprSKXZJTqy2)

October 27, 2020

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  $r3\_euclidlp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_euclid : \iota \Rightarrow \iota$  be given. Let  $k7\_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k9\_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2 \\ X1 k1\_numbers (k1\_euclid X0)) \Rightarrow ((k8\_euclid X0 X1 X1 = k5\_euclid X0) \wedge \\ (k7\_euclid X0 X1 (k6\_euclid X0 X1) = k5\_euclid X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow (k9\_euclid X1 (k5\_euclid X1) X0 = k5\_euclid X1)) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 k5\_numbers) \Rightarrow (\forall X2.(m2\_finseq\_2 X2 k1\_numbers (k1\_euclid \\ X1)) \Rightarrow (\forall X3.(m2\_finseq\_2 X3 k1\_numbers (k1\_euclid X1)) \Rightarrow \\ ((k9\_euclid X1 (k8\_euclid X1 X2 X3) X0 = k7\_euclid X1 (k9\_euclid X1 \\ X2 X0) (k6\_euclid X1 (k9\_euclid X1 X3 X0))) \wedge ((k9\_euclid X1 (k8\_euclid \\ X1 X2 X3) X0 = k7\_euclid X1 (k9\_euclid X1 X2 X0) (k9\_euclid X1 X3 (k1\_real\_1 \\ X0))) \wedge (k9\_euclid X1 (k8\_euclid X1 X2 X3) X0 = k8\_euclid X1 (k9\_euclid \\ X1 X2 X0) (k9\_euclid X1 X3 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} ((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge \\ ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$\neg v1\_xboole\_0 \quad np\_1 \quad (5)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (6)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (7)$$

Assume the following.

$$v6\_membered \quad k4\_ordinal1 \quad (8)$$

Assume the following.

$$v1\_xboole\_0 \quad k1\_xboole\_0 \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \quad X0 \quad k1\_numbers) \Rightarrow (m1\_subset\_1 \quad (k1\_real\_1 \quad X0) \quad k1\_numbers) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 \quad X0 \quad k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2 \\ & X1 \quad k1\_numbers \quad (k1\_euclid \quad X0)) \Rightarrow (\forall X2.(m2\_finseq\_2 \quad X2 \quad k1\_numbers \\ & (k1\_euclid \quad X0)) \Rightarrow ((r3\_euclidlp \quad X0 \quad X1 \quad X2) \Leftrightarrow (\forall X3.(m1\_subset\_1 \\ & X3 \quad k1\_numbers) \Rightarrow (\forall X4.(m1\_subset\_1 \quad X4 \quad k1\_numbers) \Rightarrow ((k7\_euclid \\ & X0 \quad (k9\_euclid \quad X0 \quad X1 \quad X3) \quad (k9\_euclid \quad X0 \quad X2 \quad X4) = k5\_euclid \quad X0) \Rightarrow ((X3 = \\ & k6\_numbers) \wedge (X4 = k6\_numbers)))))))))) \quad (11) \end{aligned}$$

Assume the following.

$$\forall X0.(v6\_membered \quad X0) \Rightarrow (\forall X1.(m1\_subset\_1 \quad X1 \quad X0) \Rightarrow (v7\_ordinal1 \quad X1)) \quad (12)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 \quad X0 \quad k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2 \\ & X1 \quad k1\_numbers \quad (k1\_euclid \quad X0)) \Rightarrow (\forall X2.(m2\_finseq\_2 \quad X2 \quad k1\_numbers \\ & (k1\_euclid \quad X0)) \Rightarrow (\neg(r3\_euclidlp \quad X0 \quad X1 \quad X2) \wedge (X1 = X2)))) \end{aligned}$$