

t25\_euclidlp  
(TMLXZyDNvQ9pEoTdfFrFeoEtZEjmctrob292)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_euclid : \iota \Rightarrow \iota$  be given. Let  $k8\_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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. Let  $k9\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2 \\ & X1 k1\_numbers (k1\_euclid X0)) \Rightarrow (\forall X2.(m2\_finseq\_2 X2 k1\_numbers \\ & (k1\_euclid X0)) \Rightarrow (\forall X3.(m2\_finseq\_2 X3 k1\_numbers (k1\_euclid \\ & X0)) \Rightarrow (\forall X4.(m2\_finseq\_2 X4 k1\_numbers (k1\_euclid X0)) \Rightarrow \\ & (k8\_euclid X0 (k7\_euclid X0 X1 X2) (k7\_euclid X0 X3 X4) = k7\_euclid \\ & X0 (k8\_euclid X0 X1 X3) (k8\_euclid X0 X2 X4)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 k1\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k5\_numbers) \Rightarrow (\forall X3. \\ & (m2\_finseq\_2 X3 k1\_numbers (k1\_euclid X2)) \Rightarrow ((k9\_euclid X2 X3 ( \\ & k9\_real\_1 X0 X1) = k7\_euclid X2 (k9\_euclid X2 X3 X0) (k9\_euclid X2 \\ & X3 (k1\_real\_1 X1))) \wedge ((k9\_euclid X2 X3 (k9\_real\_1 X0 X1) = k7\_euclid \\ & X2 (k9\_euclid X2 X3 X0) (k6\_euclid X2 (k9\_euclid X2 X3 X1))) \wedge (k9\_euclid \\ & X2 X3 (k9\_real\_1 X0 X1) = k8\_euclid X2 (k9\_euclid X2 X3 X0) (k9\_euclid \\ & X2 X3 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1.(m1\_finseq\_2 X1 X0) \Rightarrow (\forall X2.(m2\_finseq\_2 X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \quad (3)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7\_ordinal1\ X0)\wedge((m1\_subset\_1\ X1\ (k1\_euclid\ X0))\wedge(v1\_xreal\_0\ X2)))\Rightarrow(m2\_finseq\_2\ (k9\_euclid\ X0\ X1\ X2)\ k1\_numbers\ (k1\_euclid\ X0)) \quad (5)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(m1\_finseq\_2\ (k1\_euclid\ X0)\ k1\_numbers) \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \quad (8)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k1\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k1\_numbers)\Rightarrow(\forall X3. \\ & (m1\_subset\_1\ X3\ k1\_numbers)\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ k5\_numbers)\Rightarrow \\ & (\forall X5.(m2\_finseq\_2\ X5\ k1\_numbers\ (k1\_euclid\ X4))\Rightarrow(\forall X6. \\ & (m2\_finseq\_2\ X6\ k1\_numbers\ (k1\_euclid\ X4))\Rightarrow(k8\_euclid\ X4\ (k7\_euclid \\ & X4\ (k9\_euclid\ X4\ X5\ X0)\ (k9\_euclid\ X4\ X6\ X1))\ (k7\_euclid\ X4\ (k9\_euclid \\ & X4\ X5\ X2)\ (k9\_euclid\ X4\ X6\ X3)) = k7\_euclid\ X4\ (k9\_euclid\ X4\ X5\ (k9\_real\_1 \\ & X0\ X2))\ (k9\_euclid\ X4\ X6\ (k9\_real\_1\ X1\ X3))))))))) \end{aligned}$$