l53_euclid_7 (TMaPyJPh8WjXcDrurcfBr9KKB8znqXQeDGJ)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $m1\_rlsub\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_funcsdom : \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ 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 $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ 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 $np\_\_1 : \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k5\_euclid : \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow ((k9\_euclid\ X0\ X1\ np\_\_1 = X1) \wedge (k9\_euclid\ X0\ X1\ k6\_numbers = k5\_euclid\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_rlsub\_1\ X1\ (k10\_funcsdom\ (k2\_finseq\_1\ X0))) \Rightarrow (\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ k1\_numbers) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ k1\_numbers) \Rightarrow (((X2 \in u1\_struct\_0\ X1) \wedge (X3 \in u1\_struct\_0\ X1)) \Rightarrow (k7\_euclid\ X0\ (k9\_euclid\ X0\ X2\ X4)\ (k9\_euclid\ X0\ X3\ X5) \in u1\_struct\_0\ X1))))))) \tag{2}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1) \wedge (m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{3}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_rlsub\_1\ X1\ (k10\_funcsdom\ (k2\_finseq\_1\ X0))) \Rightarrow (\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ k1\_numbers) \Rightarrow (((X2 \in u1\_struct\_0\ X1) \wedge (X3 \in u1\_struct\_0\ X1)) \Rightarrow (k7\_euclid\ X0\ (k9\_euclid\ X0\ X2\ X4)\ X3 \in u1\_struct\_0\ X1)))))))$$