t37_euclid_7 (TMMkgm1REtuWuLYFxP2NKnKbHS96hRHg4Dj)

October 27, 2020

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 $m1\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_rlsub\_1\ X1\ (k10\_funcsdom\ (k2\_finseq\_1\ X0))) \Rightarrow (\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (((X2 \in u1\_struct\_0\ X1) \wedge (X3 \in u1\_struct\_0\ X1)) \Rightarrow (k7\_euclid\ X0\ X2\ X3 \in u1\_struct\_0\ X1))))) \tag{1}$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7\_ordinal1\ X0) \wedge ((m1\_subset\_1\ X1\ (k1\_euclid\ X0)) \wedge (v1\_xreal\_0\ X2))) \Rightarrow (m2\_finseq\_2\ (k9\_euclid\ X0\ X1\ X2)\ k1\_numbers\ (k1\_euclid\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (m1\_finseq\_2\ (k1\_euclid\ X0)\ k1\_numbers) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (v1\_xreal\_0\ X0) \tag{6}$$

Theorem 1

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