t81_euclid_8 (TMTeJzZNHRaLZeRi4xiFYLM4ad513cUUQjj)

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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 $np\_\_3 : \iota$ be given. Let $k23\_rvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k4\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_rvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v6\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m2\_finseq\_2\ X0\ k1\_numbers\ (k1\_euclid\ np\_\_3)) \Rightarrow (\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k1\_euclid\ np\_\_3)) \Rightarrow (\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k1\_euclid\ np\_\_3)) \Rightarrow (\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ np\_\_3)) \Rightarrow (k23\_rvsum\_1\ (k8\_euclid\ np\_\_3\ X0\ X1)\ (k8\_euclid\ np\_\_3\ X2\ X3) = k9\_binop\_2\ (k10\_binop\_2\ (k10\_binop\_2\ (k23\_rvsum\_1\ X0\ X2)\ (k23\_rvsum\_1\ X0\ X3))\ (k23\_rvsum\_1\ X1\ X2))\ (k23\_rvsum\_1\ X1\ X3)))))) \tag{1}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k4\_finseq\_2\ X0\ k1\_numbers)) \Rightarrow (\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k4\_finseq\_2\ X0\ k1\_numbers)) \Rightarrow (k23\_rvsum\_1\ (k9\_rvsum\_1\ X0\ X1\ X2)\ (k9\_rvsum\_1\ X0\ X1\ X2) = k9\_binop\_2\ (k10\_binop\_2\ (k23\_rvsum\_1\ X1\ X1)\ (k11\_binop\_2\ np\_\_2\ (k23\_rvsum\_1\ X1\ X2)))\ (k23\_rvsum\_1\ X2\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k4\_finseq\_2\ X0\ k1\_numbers))\Rightarrow(\forall X2.(m2\_finseq\_2\ X2\ k1\_numbers\ (k4\_finseq\_2\ X0\ k1\_numbers))\Rightarrow(\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k4\_finseq\_2\ X0\ k1\_numbers))\Rightarrow(\forall X4.(m2\_finseq\_2\ X4\ k1\_numbers\ (k4\_finseq\_2\ X0\ k1\_numbers))\Rightarrow(k23\_rvsum\_1\ (k9\_rvsum\_1\ X0\ X1\ X2)\ (k9\_rvsum\_1\ X0\ X3\ X4) = k9\_binop\_2\ (k10\_binop\_2\ (k10\_binop\_2\ (k23\_rvsum\_1\ X1\ X3)\ (k23\_rvsum\_1\ X1\ X4))\ (k23\_rvsum\_1\ X2\ X3))\ (k23\_rvsum\_1\ X2\ X4)))))) \tag{3}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_3)\wedge(m2\_subset\_1\ np\_\_3\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_3\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_3\ k1\_numbers)) \tag{4}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{5}$$

Assume the following.

$$v6\_membered\ k4\_ordinal1 \tag{6}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(k1\_euclid\ X0 = k4\_finseq\_2\ X0\ k1\_numbers) \tag{7}$$

Assume the following.

$$\forall X0.(v6\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v7\_ordinal1\ X1)) \tag{8}$$

Theorem 1

$$\forall X0.(m2\_finseq\_2\ X0\ k1\_numbers\ (k1\_euclid\ np\_\_3))\Rightarrow(\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k1\_euclid\ np\_\_3))\Rightarrow(k23\_rvsum\_1\ (k8\_euclid\ np\_\_3\ X0\ X1)\ (k8\_euclid\ np\_\_3\ X0\ X1) = k9\_binop\_2\ (k10\_binop\_2\ (k23\_rvsum\_1\ X0\ X0)\ (k11\_binop\_2\ np\_\_2\ (k23\_rvsum\_1\ X0\ X1)))\ (k23\_rvsum\_1\ X1\ X1)))$$