t1_euclid_8 (TMEx4DGBLEyoTWqcuTkfmUPNrYegCmh9fhS)

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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 $k1\_euclid\_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $k11\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $m1\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6\_membered : \iota \Rightarrow o$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_relat\_1\ X3) \wedge ((v1\_funct\_1\ X3) \wedge (v1\_finseq\_1\ X3))) \Rightarrow ((X3 = k11\_finseq\_1\ X0\ X1\ X2) \Leftrightarrow ((k3\_finseq\_1\ X3 = np\_\_3) \wedge ((k1\_funct\_1\ X3\ np\_\_1 = X0) \wedge ((k1\_funct\_1\ X3\ np\_\_2 = X1) \wedge (k1\_funct\_1\ X3\ np\_\_3 = X2)))))) \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v3\_card\_1\ X1\ np\_\_3) \wedge (m2\_finseq\_1\ X1\ X0)) \Rightarrow (\exists X2.(m1\_subset\_1\ X2\ X0) \wedge (\exists X3.(m1\_subset\_1\ X3\ X0) \wedge (\exists X4.(m1\_subset\_1\ X4\ X0) \wedge (X1 = k11\_finseq\_1\ X2\ X3\ X4))))) \tag{2}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_3) \wedge (m2\_subset\_1\ np\_\_3\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_3\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_3\ k1\_numbers)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_2\ X1\ X0) \Rightarrow (\forall X2.(m2\_finseq\_2\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{4}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v3\_valued\_0\ X0)))\Rightarrow(k1\_seq\_1\ X0\ X1 = k1\_funct\_1\ X0\ X1) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_xreal\_0\ X0)\wedge((v1\_xreal\_0\ X1)\wedge(v1\_xreal\_0\ X2)))\Rightarrow(k1\_euclid\_8\ X0\ X1\ X2 = k11\_finseq\_1\ X0\ X1\ X2) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1\ (k2\_zfmisc\_1\ X0\ X1) \tag{8}$$

Assume the following.

$$v6\_membered\ k4\_ordinal1 \tag{9}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{10}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_2\ X1\ X0)\Rightarrow(\forall X2.(m2\_finseq\_2\ X2\ X0\ X1)\Rightarrow(m2\_finseq\_1\ X2\ X0)) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Rightarrow((v1\_funct\_1\ X1)\wedge((v1\_finseq\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ X0))))) \tag{13}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(m1\_finseq\_2\ (k1\_euclid\ X0)\ k1\_numbers) \tag{14}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_relat\_1\ X1)) \tag{15}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_euclid\ X0))\Rightarrow(v3\_card\_1\ X1\ X0)) \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.(v3\_membered\ X1)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v3\_valued\_0\ X2)) \tag{17}$$

Assume the following.

$$\forall X0.(v6\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v7\_ordinal1\ X1)) \tag{18}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v1\_xreal\_0\ X1)) \tag{19}$$

Theorem 1

$$\forall X0.(m2\_finseq\_2\ X0\ k1\_numbers\ (k1\_euclid\ np\_\_3))\Rightarrow(X0 = k1\_euclid\_8\ (k1\_seq\_1\ X0\ np\_\_1)\ (k1\_seq\_1\ X0\ np\_\_2)\ (k1\_seq\_1\ X0\ np\_\_3))$$