t80_euclidlp (TMNb7YYhSDfJndrkCw1t7b9ortGpKAMLRzb)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ 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 $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_euclidlp : \iota \Rightarrow \iota$ be given. Let $r6\_euclidlp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5\_euclidlp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_euclid\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k1\_euclid\ X0)) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\neg(v1\_euclid\_4\ X2\ X0) \wedge (\forall X3.(m2\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\neg(X1 \in X3) \wedge (r5\_euclidlp\ X0\ X3\ X2))))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow ((r6\_euclidlp\ X0\ X1\ X2) \Rightarrow ((v1\_euclid\_4\ X1\ X0) \wedge (v1\_euclid\_4\ X2\ X0))))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (\forall X3.(m2\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0)) \Rightarrow (((r6\_euclidlp\ X0\ X1\ X2) \wedge (r5\_euclidlp\ X0\ X2\ X3)) \Rightarrow (r6\_euclidlp\ X0\ X1\ X3))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X0\ k5\_numbers) \wedge ((m1\_subset\_1\ X1\ (k1\_euclidlp\ X0)) \wedge (m1\_subset\_1\ X2\ (k1\_euclidlp\ X0)))) \Rightarrow ((r6\_euclidlp\ X0\ X1\ X2) \Rightarrow (r6\_euclidlp\ X0\ X2\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X0\ k5\_numbers)\wedge ((m1\_subset\_1\ X1\ (k1\_euclidlp\ X0))\wedge(m1\_subset\_1\ X2\ (k1\_euclidlp\ X0))))\Rightarrow((r5\_euclidlp\ X0\ X1\ X2)\Rightarrow(r5\_euclidlp\ X0\ X2\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Leftrightarrow(m1\_subset\_1\ X2\ X1)) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\neg v1\_xboole\_0\ (k1\_euclidlp\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(m1\_subset\_1\ (k1\_euclidlp\ X0)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (k1\_euclid\ X0)))) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{9}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.(m2\_finseq\_2\ X1\ k1\_numbers\ (k1\_euclid\ X0))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0))\Rightarrow(\forall X3.(m2\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0))\Rightarrow(\neg(r6\_euclidlp\ X0\ X2\ X3)\wedge(\forall X4.(m2\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k1\_euclid\ X0))\ (k1\_euclidlp\ X0))\Rightarrow(\neg(X1\in X4)\wedge((r6\_euclidlp\ X0\ X4\ X3)\wedge(r5\_euclidlp\ X0\ X4\ X2))))))))$$