t5_sppol_2 (TMX6GmEzhBhSMuXFXufwHnd6wsCZFmCkxQa)

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Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k15\_euclid : \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $k1\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_rfinseq : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ 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 $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ 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 $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_card\_1 : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{gathered}\forall X0.(m2\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow \\ (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (\\ ((r1\_xxreal\_0\ X2\ (k3\_finseq\_1\ X0)) \wedge (r1\_xxreal\_0\ np\_\_1\ X1)) \Rightarrow (\\ k2\_topreal1\ np\_\_2\ (k2\_rfinseq\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)) \\ X2\ X0)\ X1 = k2\_topreal1\ np\_\_2\ X0\ (k2\_xcmplx\_0\ X2\ X1)))))\end{gathered} \tag{1}$$

Assume the following.

$$\begin{gathered}\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2. \\ (v1\_xxreal\_0\ X2) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X1\ X2)) \Rightarrow \\ (r1\_xxreal\_0\ X0\ X2))))\end{gathered} \tag{2}$$

Assume the following.

$$\begin{gathered}\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\forall X2. \\ (v1\_xreal\_0\ X2) \Rightarrow ((r1\_xxreal\_0\ (k2\_xcmplx\_0\ X0\ X1)\ X2) \Leftrightarrow (r1\_xxreal\_0 \\ X0\ (k6\_xcmplx\_0\ X2\ X1)))))\end{gathered} \tag{3}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(r1\_xxreal\_0\ X0\ (k2\_xcmplx\_0\ X0\ X1))) \tag{4}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1)\wedge(m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_1\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Leftrightarrow(m1\_finseq\_1\ X1\ X0) \tag{6}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{7}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))\Rightarrow(k3\_finseq\_1\ X0 = k1\_card\_1\ X0) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(m1\_subset\_1\ X1\ k5\_numbers))\Rightarrow(k1\_nat\_1\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0)\Rightarrow((v1\_finset\_1\ (k1\_card\_1\ X0))\wedge(v1\_card\_1\ (k1\_card\_1\ X0))) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(v7\_ordinal1\ X1))\Rightarrow(v7\_ordinal1\ (k2\_xcmplx\_0\ X0\ X1)) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Rightarrow((v1\_funct\_1\ X1)\wedge((v1\_finseq\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ X0))))) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1\ X1\ X0)\Rightarrow((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v1\_finseq\_1\ X1))) \tag{13}$$

Assume the following.

$$\forall X0.v1\_card\_1\ (k1\_card\_1\ X0) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(\\ k2\_xcmplx\_0\ X0\ X1 = k2\_xcmplx\_0\ X1\ X0) \tag{15}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{16}$$

Assume the following.

$$\forall X0.((v3\_ordinal1\ X0)\wedge(v1\_finset\_1\ X0))\Rightarrow(v7\_ordinal1\ X0) \tag{17}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{18}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xxreal\_0\ X0) \tag{19}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xreal\_0\ X0) \tag{20}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))\Rightarrow\\ ((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finset\_1\ X0))) \tag{21}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0)\Rightarrow(v3\_ordinal1\ X0) \tag{22}$$

Theorem 1

$$\forall X0.(m2\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow\\ (\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow(\\ ((r1\_xxreal\_0\ np\_\_1\ X1)\wedge(r1\_xxreal\_0\ (k1\_nat\_1\ X1\ np\_\_1)\ (k6\_xcmplx\_0\\ (k3\_finseq\_1\ X0)\ X2)))\Rightarrow(k2\_topreal1\ np\_\_2\ (k2\_rfinseq\ (u1\_struct\_0\\ (k15\_euclid\ np\_\_2))\ X2\ X0)\ X1 = k2\_topreal1\ np\_\_2\ X0\ (k2\_xcmplx\_0\\ X2\ X1)))))$$