t113_jordan2c (TMG-PtMj4rGxMfUBnaNiJWkJ9NtAQ9RbZYwC)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v3\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_6 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1\_topreal1 : \iota \Rightarrow o$ be given. Let $v2\_topreal1 : \iota \Rightarrow o$ be given. Let $v1\_goboard5 : \iota \Rightarrow o$ be given. Let $v2\_goboard5 : \iota \Rightarrow o$ be given. Let $v1\_sprect\_2 : \iota \Rightarrow o$ 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 $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k20\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k18\_euclid : \iota \Rightarrow \iota$ be given. Let $k7\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_goboard9 : \iota \Rightarrow \iota$ be given. Let $v2\_compts\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_sprect\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_sprect\_1 : \iota \Rightarrow o$ be given. Let $k6\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k17\_euclid : \iota \Rightarrow \iota$ be given. Let $k8\_pscomp\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_pscomp\_1 : \iota \Rightarrow \iota$ 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 $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v1\_sppol\_1 : \iota \Rightarrow o$ be given. Let $v2\_sppol\_1 : \iota \Rightarrow o$ be given. Let $v6\_membered : \iota \Rightarrow o$ be given. Let $v1\_zfmisc\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge ((v2\_compts\_1\ X0\ (k15\_euclid\ np\_\_2)) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))))) \Rightarrow (k7\_pscomp\_1\ (k3\_topreal1\ np\_\_2\ (k1\_sprect\_1\ X0)) = k7\_pscomp\_1\ X0) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((\neg v3\_funct\_1\ X0)\wedge((v1\_finseq\_6\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge((v1\_topreal1\ X0)\wedge((v2\_topreal1\ X0)\wedge((v1\_goboard5\ X0)\wedge((v2\_goboard5\ X0)\wedge((v1\_sprect\_2\ X0)\wedge(m2\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))))\Rightarrow((k7\_partfun1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X0\ np\_\_1 = k20\_pscomp\_1\ (k3\_topreal1\ np\_\_2\ X0))\Rightarrow(r1\_tarski\ (k2\_goboard9\ (k1\_sprect\_1\ (k3\_topreal1\ np\_\_2\ X0)))\ (k2\_goboard9\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v1\_finseq\_6\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge((v1\_topreal1\ X0)\wedge((v2\_topreal1\ X0)\wedge((v1\_goboard5\ X0)\wedge((v1\_sprect\_1\ X0)\wedge(m2\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow((\neg(r1\_xxreal\_0\ (k6\_pscomp\_1\ (k3\_topreal1\ np\_\_2\ X0))\ (k17\_euclid\ X1))\wedge((r1\_xxreal\_0\ (k17\_euclid\ X1)\ (k8\_pscomp\_1\ (k3\_topreal1\ np\_\_2\ X0)))\wedge((r1\_xxreal\_0\ (k9\_pscomp\_1\ (k3\_topreal1\ np\_\_2\ X0))\ (k18\_euclid\ X1))\wedge(r1\_xxreal\_0\ (k18\_euclid\ X1)\ (k7\_pscomp\_1\ (k3\_topreal1\ np\_\_2\ X0))))))\Rightarrow(X1 \in k2\_goboard9\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1))\Leftrightarrow(r1\_tarski\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1)\Rightarrow((v1\_xboole\_0\ X1)\vee(X0 \in X1)) \tag{6}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_2)\wedge(m2\_subset\_1\ np\_\_2\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_2\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_2\ k1\_numbers)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Leftrightarrow(m1\_finseq\_1\ X1\ X0) \tag{8}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{9}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v2\_compts\_1\ X0\ (k15\_euclid\ np\_\_2))\wedge((\neg v1\_sppol\_1\ X0)\wedge((\neg v2\_sppol\_1\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))\Rightarrow((v1\_finseq\_6\ (k1\_sprect\_1\ X0)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge((v1\_topreal1\ (k1\_sprect\_1\ X0))\wedge((v2\_topreal1\ (k1\_sprect\_1\ X0))\wedge((v1\_goboard5\ (k1\_sprect\_1\ X0))\wedge(v2\_goboard5\ (k1\_sprect\_1\ X0)))))) \tag{10}$$

Assume the following.

$$v6\_membered\ k4\_ordinal1 \tag{11}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v2\_compts\_1\ X0\ (k15\_euclid\ np\_\_2))\wedge((\neg v1\_sppol\_1\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))))))\Rightarrow(\neg v3\_funct\_1\ (k1\_sprect\_1\ X0)) \tag{12}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((\neg v3\_funct\_1\ X0)\wedge((v1\_finseq\_6\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge((v1\_topreal1\ X0)\wedge((v2\_topreal1\ X0)\wedge((v1\_goboard5\ X0)\wedge((v2\_goboard5\ X0)\wedge(m1\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))))\Rightarrow((\neg v1\_sppol\_1\ (k3\_topreal1\ np\_\_2\ X0))\wedge(\neg v2\_sppol\_1\ (k3\_topreal1\ np\_\_2\ X0))) \tag{13}$$

Assume the following.

$$\forall X0.(m1\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(v2\_compts\_1\ (k3\_topreal1\ np\_\_2\ X0)\ (k15\_euclid\ np\_\_2)) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k5\_numbers)\wedge((\neg v1\_zfmisc\_1\ X1)\wedge(m1\_finseq\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ X0)))))\Rightarrow(\neg v1\_xboole\_0\ (k3\_topreal1\ X0\ X1)) \tag{15}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((\neg v3\_funct\_1\ X0)\wedge((v1\_finseq\_6\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge((v1\_topreal1\ X0)\wedge((v2\_topreal1\ X0)\wedge((v1\_goboard5\ X0)\wedge((v2\_goboard5\ X0)\wedge(m1\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))))\Rightarrow(\neg v1\_xboole\_0\ (k2\_goboard9\ X0)) \tag{16}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v2\_compts\_1\ X0\ (k15\_euclid\ np\_\_2))\wedge((\neg v1\_sppol\_1\ X0)\wedge((\neg v2\_sppol\_1\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))))))))\Rightarrow(v1\_sprect\_1\ (k1\_sprect\_1\ X0)) \tag{17}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Rightarrow((v1\_funct\_1\ X1)\wedge((v1\_finseq\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ X0))))) \tag{18}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1\ X1\ X0)\Rightarrow((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v1\_finseq\_1\ X1))) \tag{19}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(m1\_finseq\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ X0))))\Rightarrow(m1\_subset\_1\ (k3\_topreal1\ X0\ X1)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ X0)))) \tag{20}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow(m2\_finseq\_1\ (k1\_sprect\_1\ X0)\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \tag{21}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(\neg v3\_funct\_1\ X0)))\Rightarrow((\neg v1\_zfmisc\_1\ X0)\wedge((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))) \tag{22}$$

Assume the following.

$$\forall X0.((v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0)))\Rightarrow((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v3\_funct\_1\ X0))) \tag{23}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(v1\_funct\_1\ X0) \tag{24}$$

Assume the following.

$$\forall X0.(v6\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v7\_ordinal1\ X1)) \tag{25}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((\neg v3\_funct\_1\ X0)\wedge((v1\_finseq\_6\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge((v1\_topreal1\ X0)\wedge((v2\_topreal1\ X0)\wedge((v1\_goboard5\ X0)\wedge((v2\_goboard5\ X0)\wedge((v1\_sprect\_2\ X0)\wedge(m2\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow((k7\_partfun1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X0\ np\_\_1 = k20\_pscomp\_1\ (k3\_topreal1\ np\_\_2\ X0))\Rightarrow((r1\_xxreal\_0\ (k18\_euclid\ X1)\ (k7\_pscomp\_1\ (k3\_topreal1\ np\_\_2\ X0)))\vee(X1 \in k2\_goboard9\ X0))))$$