l30_jordan12 (TMGZTZ5ytofrudMfBjEmeNhkpNTBsEN3BWb)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v3\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_topreal1 : \iota \Rightarrow o$ 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 $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $r3\_connsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (\forall X2.((\neg v1\_xboole\_0\ X2) \wedge ((\neg v3\_funct\_1\ X2) \wedge ((v1\_finseq\_6\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \wedge ((v1\_topreal1\ X2) \wedge ((v2\_topreal1\ X2) \wedge ((v1\_goboard5\ X2) \wedge ((v2\_goboard5\ X2) \wedge (m2\_finseq\_1\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (\neg(X3 \in k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ X0\ X1) \wedge ((\exists X4.k9\_subset\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k3\_topreal1\ np\_\_2\ X2)\ (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ X0\ X1) = k1\_tarski\ X4) \wedge ((\neg X3 \in k3\_topreal1\ np\_\_2\ X2) \wedge ((\neg r1\_xboole\_0\ (k3\_topreal1\ np\_\_2\ X2)\ (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ X0\ X3)) \wedge (\neg r1\_xboole\_0\ (k3\_topreal1\ np\_\_2\ X2)\ (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ X3\ X1)))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((\neg v3\_funct\_1\ X0)\wedge((v1\_finseq\_6\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge((v1\_topreal1\ X0)\wedge((v2\_topreal1\ X0)\wedge((v1\_goboard5\ X0)\wedge((v2\_goboard5\ X0)\wedge(m2\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(\neg(r1\_xboole\_0\ (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ X1\ X2)\ (k3\_topreal1\ np\_\_2\ X0))\wedge(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow(\neg(r3\_connsp\_1\ (k15\_euclid\ np\_\_2)\ (k3\_subset\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k3\_topreal1\ np\_\_2\ X0))\ X3)\wedge((X1\in X3)\wedge(X2\in X3))))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_xboole\_0\ X0\ X1)\Rightarrow(r1\_xboole\_0\ X1\ X0) \tag{3}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(\forall X2.((\neg v1\_xboole\_0\ X2)\wedge((\neg v3\_funct\_1\ X2)\wedge((v1\_finseq\_6\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge((v1\_topreal1\ X2)\wedge((v2\_topreal1\ X2)\wedge((v1\_goboard5\ X2)\wedge((v2\_goboard5\ X2)\wedge(m2\_finseq\_1\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(\neg(X3\in k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ X0\ X1)\wedge((\exists X4.k9\_subset\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k3\_topreal1\ np\_\_2\ X2)\ (k1\_rltopsp1\ (k15\_euclid\ np\_\_2)\ X0\ X1)=k1\_tarski\ X4)\wedge((\neg X3\in k3\_topreal1\ np\_\_2\ X2)\wedge((\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow(\neg(r3\_connsp\_1\ (k15\_euclid\ np\_\_2)\ (k3\_subset\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k3\_topreal1\ np\_\_2\ X2))\ X4)\wedge((X3\in X4)\wedge(X0\in X4))))\wedge(\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))\Rightarrow(\neg(r3\_connsp\_1\ (k15\_euclid\ np\_\_2)\ (k3\_subset\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k3\_topreal1\ np\_\_2\ X2))\ X4)\wedge((X3\in X4)\wedge(X1\in X4))))))))))$$