t53_jordan4 (TMM-Bru7EyHyfSrtukDB2zWqMZkqWeApzhjB)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ 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 $u1\_struct\_0 : \iota \Rightarrow \iota$ 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 $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_jordan4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k7\_nat\_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_finseq\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v3\_funct\_1\ X0) \wedge ((v1\_finseq\_6\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \wedge ((v1\_topreal1\ X0) \wedge ((v2\_topreal1\ X0) \wedge ((v1\_goboard5\ X0) \wedge ((v2\_goboard5\ X0) \wedge (m2\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))) \Rightarrow (\forall X1.(m2\_finseq\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k5\_numbers) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k5\_numbers) \Rightarrow ((r2\_jordan4\ X0\ X1\ X2\ X3) \Rightarrow ((r1\_xxreal\_0\ X3\ X2) \vee ((k3\_finseq\_1\ X1 = k7\_nat\_d\ (k2\_nat\_1\ (k3\_finseq\_1\ X0)\ X2)\ X3) \wedge (X1 = k8\_finseq\_1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ (k3\_finseq\_6\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X0\ X2\ np\_\_1)\ (k3\_finseq\_6\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X0\ (k7\_nat\_d\ (k3\_finseq\_1\ X0)\ np\_\_1)\ X3)))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((\neg v3\_funct\_1\ X0)\wedge((v1\_finseq\_6\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge((v1\_topreal1\ X0)\wedge((v2\_topreal1\ X0)\wedge((v1\_goboard5\ X0)\wedge((v2\_goboard5\ X0)\wedge(m2\_finseq\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))))\Rightarrow(\forall X1.(m2\_finseq\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k5\_numbers)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k5\_numbers)\Rightarrow(((r2\_jordan4\ X0\ X1\ X2\ X3)\wedge(r1\_xxreal\_0\ X3\ X2))\Rightarrow((k3\_finseq\_1\ X1 = k2\_nat\_1\ (k7\_nat\_d\ X2\ X3)\ np\_\_1)\wedge(X1 = k3\_finseq\_6\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))\ X0\ X2\ X3))))))) \tag{2}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k5\_numbers)\Rightarrow(\forall X2.((\neg v1\_xboole\_0\ X2)\wedge((\neg v3\_funct\_1\ X2)\wedge((v1\_finseq\_6\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\wedge((v1\_topreal1\ X2)\wedge((v2\_topreal1\ X2)\wedge((v1\_goboard5\ X2)\wedge((v2\_goboard5\ X2)\wedge(m2\_finseq\_1\ X2\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))))))))))\Rightarrow(\forall X3.(m2\_finseq\_1\ X3\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(\forall X4.(m2\_finseq\_1\ X4\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(((r2\_jordan4\ X2\ X3\ X0\ X1)\wedge(r2\_jordan4\ X2\ X4\ X0\ X1))\Rightarrow(X3 = X4))))))$$