

## t38\_sprect\_2

(TMRm4oiMdmNtVxoTk2pLPXQ6h5xG5Hf5QMt)

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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  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v4\_topreal1 : \iota \Rightarrow o$  be given. Let  $k3\_finseq\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_finseq\_5 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_5 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v1\_xboole\_0 X0) \wedge ((\neg v3\_funct\_1 X0) \wedge ((v1\_finseq\_6 \\
 & X0 (u1\_struct\_0 (k15\_euclid np\_2))) \wedge ((v1\_topreal1 X0) \wedge ((v2\_topreal1 \\
 & X0) \wedge ((v1\_goboard5 X0) \wedge ((v2\_goboard5 X0) \wedge (m2\_finseq\_1 X0 (u1\_struct\_0 \\
 & (k15\_euclid np\_2)))))))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 k5\_numbers) \Rightarrow \\
 & (\forall X2.(m1\_subset\_1 X2 k5\_numbers) \Rightarrow (\neg(\neg r1\_xxreal\_0 X1 X2) \wedge \\
 & (((\neg r1\_xxreal\_0 X2 np\_1) \wedge (r1\_xxreal\_0 X1 (k3\_finseq\_1 X0))) \vee \\
 & ((r1\_xxreal\_0 np\_1 X2) \wedge (\neg r1\_xxreal\_0 (k3\_finseq\_1 X0) X1))) \wedge \\
 & (\neg(v4\_topreal1 (k3\_finseq\_6 (u1\_struct\_0 (k15\_euclid np\_2)) \\
 & X0 X1 X2)) \wedge (m2\_finseq\_1 (k3\_finseq\_6 (u1\_struct\_0 (k15\_euclid \\
 & np\_2)) X0 X1 X2) (u1\_struct\_0 (k15\_euclid np\_2))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m2\_finseq\_1 X1 X0) \Rightarrow \\
 & (\forall X2.(m1\_subset\_1 X2 k5\_numbers) \Rightarrow (\forall X3.(m1\_subset\_1 \\
 & X3 k5\_numbers) \Rightarrow (k3\_finseq\_6 X0 X1 X2 X3 = k4\_finseq\_5 X0 (k3\_finseq\_6 \\
 & X0 X1 X3 X2))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1.(m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0)\Rightarrow(k4\_finseq\_5 X0 X1 = k3\_finseq\_5 X1) \quad (4)$$

Assume the following.

$$\forall X0.((v4\_topreal1 X0)\wedge(m1\_finseq\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))))\Rightarrow(v4\_topreal1 (k3\_finseq\_5 X0)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0)\Rightarrow((v1\_funct\_1 X1)\wedge((v1\_finseq\_1 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0)))))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0)\Rightarrow(m2\_finseq\_1 (k4\_finseq\_5 X0 X1) X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(v1\_xboole\_0 X0)\Rightarrow(\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 X0)))\Rightarrow(v1\_xboole\_0 X2)) \quad (8)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v1\_xboole\_0 X0)\wedge((\neg v3\_funct\_1 X0)\wedge((v1\_finseq\_6 \\ & X0 (u1\_struct\_0 (k15\_euclid np\_2))))\wedge((v1\_topreal1 X0)\wedge((v2\_topreal1 \\ & X0)\wedge((v1\_goboard5 X0)\wedge((v2\_goboard5 X0)\wedge(m2\_finseq\_1 X0 (u1\_struct\_0 \\ & (k15\_euclid np\_2))))))))))\Rightarrow(\forall X1.(m1\_subset\_1 X1 k5\_numbers)\Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 k5\_numbers)\Rightarrow(\neg(\neg r1\_xxreal\_0 X2 X1)\wedge \\ & (((\neg r1\_xxreal\_0 X1 np\_1)\wedge(r1\_xxreal\_0 X2 (k3\_finseq\_1 X0)))\vee \\ & ((r1\_xxreal\_0 np\_1 X1)\wedge(\neg r1\_xxreal\_0 (k3\_finseq\_1 X0) X2)))\wedge \\ & (\neg(v4\_topreal1 (k3\_finseq\_6 (u1\_struct\_0 (k15\_euclid np\_2)) \\ & X0 X1 X2))\wedge(m2\_finseq\_1 (k3\_finseq\_6 (u1\_struct\_0 (k15\_euclid \\ & np\_2)) X0 X1 X2) (u1\_struct\_0 (k15\_euclid np\_2)))))) \end{aligned}$$