

# l39\_sppol\_1

(TMT4CsHEGYTdLRwDaLic8ue9b2yApHnTRDC)

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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  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  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  $v3\_sppol\_1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
 & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
 & (\neg(k17\_euclid X0 \neq k17\_euclid X1) \wedge ((k18\_euclid X0 \neq k18\_euclid \\
 & X1) \wedge (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow \quad (1) \\
 & (\neg(X2 \in k1\_rltopsp1 (k15\_euclid np\_2) X0 X1) \wedge ((k17\_euclid X2 \neq \\
 & k17\_euclid X0) \wedge ((k17\_euclid X2 \neq k17\_euclid X1) \wedge ((k18\_euclid \\
 & X2 \neq k18\_euclid X0) \wedge (k18\_euclid X2 \neq k18\_euclid X1))))))
 \end{aligned}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(m2\_finseq\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\
 & ((v3\_sppol\_1 X0) \Leftrightarrow (\forall X1.(m2\_subset\_1 X1 k1\_numbers k5\_numbers) \Rightarrow \\
 & ((r1\_xxreal\_0 np\_1 X1) \wedge (r1\_xxreal\_0 (k2\_nat\_1 X1 np\_2) (k3\_finseq\_1 \\
 & X0)))) \Rightarrow ((k17\_euclid (k7\_partfun1 (u1\_struct\_0 (k15\_euclid np\_2)) \\
 & X0 X1) \neq k17\_euclid (k7\_partfun1 (u1\_struct\_0 (k15\_euclid np\_2)) \\
 & X0 (k2\_nat\_1 X1 np\_2))) \wedge (k18\_euclid (k7\_partfun1 (u1\_struct\_0 \\
 & (k15\_euclid np\_2)) X0 X1) \neq k18\_euclid (k7\_partfun1 (u1\_struct\_0 \\
 & (k15\_euclid np\_2)) X0 (k2\_nat\_1 X1 np\_2)))))) \quad (2)
 \end{aligned}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m2\_finseq\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m2\_subset\_1 X1 k1\_numbers k5\_numbers) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (\neg(v3\_sppol\_1 \\ & X0) \wedge ((r1\_xxreal\_0 np\_1 X1) \wedge ((r1\_xxreal\_0 (k2\_nat\_1 X1 np\_2) \\ & (k3\_finseq\_1 X0)) \wedge ((X2 = k7\_partfun1 (u1\_struct\_0 (k15\_euclid \\ & np\_2)) X0 X1) \wedge ((X3 = k7\_partfun1 (u1\_struct\_0 (k15\_euclid np\_2)) \\ & X0 (k2\_nat\_1 X1 np\_2)) \wedge (\forall X4.(m1\_subset\_1 X4 (u1\_struct\_0 \\ & (k15\_euclid np\_2))) \Rightarrow (\neg(X4 \in k1\_rltopsp1 (k15\_euclid np\_2) X2 \\ & X3) \wedge ((k17\_euclid X4 \neq k17\_euclid X2) \wedge ((k17\_euclid X4 \neq k17\_euclid \\ & X3) \wedge ((k18\_euclid X4 \neq k18\_euclid X2) \wedge (k18\_euclid X4 \neq k18\_euclid \\ & X3))))))))))))))))) \end{aligned}$$