

l18\_sppol\_1  
(TMZ2SmqpKPwBEH6VzZqCEjU4TsDztdNGCNN)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  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  $v1\_zfmisc\_1 : \iota \Rightarrow o$  be given. Let  $v1\_sppol\_1 : \iota \Rightarrow o$  be given. Let  $v2\_sppol\_1 : \iota \Rightarrow o$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow \\ & (((k17\_euclid X0 = k17\_euclid X1) \wedge (k18\_euclid X0 = k18\_euclid X1)) \Rightarrow \\ & (X0 = X1))) \end{aligned} \tag{1}$$

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.

$$\begin{aligned} & \forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (\neg(\neg \\ & v1\_zfmisc\_1 X1) \wedge (\forall X2.(m1\_subset\_1 X2 X0) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 X0) \Rightarrow (\neg(X2 \in X1) \wedge ((X3 \in X1) \wedge (X2 \neq X3))))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski X0 X0 \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ & np\_2)))) \Rightarrow ((v2\_sppol\_1 X0) \Leftrightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & (k15\_euclid np\_2)))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\ & (k15\_euclid np\_2)))) \Rightarrow (((X1 \in X0) \wedge (X2 \in X0)) \Rightarrow (k17\_euclid X1 = k17\_euclid \\ & X2)))) \end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\
& \quad np\_2)))) \Rightarrow ((v1\_sppol\_1 X0) \Leftrightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\
& \quad (k15\_euclid np\_2)))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\
& \quad (k15\_euclid np\_2)))) \Rightarrow ((X1 \in X0) \wedge (X2 \in X0)) \Rightarrow (k18\_euclid X1 = k18\_euclid \\
& \quad X2)))) \\
& \tag{7}
\end{aligned}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\
& \quad np\_2)))) \Rightarrow (\neg(\neg v1\_zfmisc\_1 X0) \wedge ((v1\_sppol\_1 X0) \wedge (v2\_sppol\_1 \\
& \quad X0)))
\end{aligned}$$