

t64\_jgraph\_4  
(TMaWYfNW5ZrgRBP957ixZ24pqHRAGUeuaFs)

October 27, 2020

Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  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  $k1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_jgraph\_4 : \iota \Rightarrow \iota$  be given. Let  $k8\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v5\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v13\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v2\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v3\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v5\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v6\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v7\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v8\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v5\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $l1\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(l1\_pre\_topc X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (u1\_struct\_0 (k1\_pre\_topc X0 X1) = X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 (k1\_pre\_topc X0 X2)))) \Rightarrow \\ & (((X1 = X3) \wedge (r1\_tarski X1 X2)) \Rightarrow (k1\_pre\_topc X0 X1 = k1\_pre\_topc \\ & (k1\_pre\_topc X0 X2) X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\
& X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (\forall X2. \\
& (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow \\
& (\forall X3.((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 (u1\_struct\_0 (k1\_pre\_topc \\
& (k15\_euclid np\_2) X1)) (u1\_struct\_0 (k1\_pre\_topc (k15\_euclid \\
& np\_2) X2))) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\
& (k1\_pre\_topc (k15\_euclid np\_2) X1)) (u1\_struct\_0 (k1\_pre\_topc \\
& (k15\_euclid np\_2) X2)))))) \Rightarrow (((X3 = k2\_partfun1 (u1\_struct\_0 \\
& (k15\_euclid np\_2)) (u1\_struct\_0 (k15\_euclid np\_2)) (k5\_jgraph\_4 \\
& X0) X1) \wedge ((X2 = k8\_struct\_0 (k15\_euclid np\_2)) \wedge (X1 = ReplSep (toset \\
& (\lambda X4 : \iota.m1\_subset\_1 X4 (u1\_struct\_0 (k15\_euclid np\_2)))) \\
& (\lambda X4 : \iota.(r1\_xxreal\_0 k6\_numbers (k18\_euclid X4)) \wedge (X4 \neq k4\_struct\_0 \\
& (k15\_euclid np\_2)) (\lambda X4 : \iota.X4)))) \Rightarrow ((r1\_xxreal\_0 X0 (k1\_real\_1 \\
& np\_1)) \vee ((r1\_xxreal\_0 np\_1 X0) \vee (v5\_pre\_topc X3 (k1\_pre\_topc \\
& (k15\_euclid np\_2) X1) (k1\_pre\_topc (k15\_euclid np\_2) X2)))))))))
\end{aligned} \tag{3}$$

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.

$$\forall X0.\forall X1.\forall X2.((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X2)) \Rightarrow (r1\_tarski X0 X2) \tag{5}$$

Assume the following.

$$\begin{aligned}
& ((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge \\
& ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers))
\end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski X0 X0 \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7\_ordinal1 X0) \Rightarrow ((v2\_pre\_topc (k15\_euclid X0)) \wedge \\
& ((v13\_algstr\_0 (k15\_euclid X0)) \wedge ((v2\_rlvect\_1 (k15\_euclid X0)) \wedge \\
& ((v3\_rlvect\_1 (k15\_euclid X0)) \wedge ((v4\_rlvect\_1 (k15\_euclid X0)) \wedge \\
& ((v5\_rlvect\_1 (k15\_euclid X0)) \wedge ((v6\_rlvect\_1 (k15\_euclid X0)) \wedge \\
& ((v7\_rlvect\_1 (k15\_euclid X0)) \wedge ((v8\_rlvect\_1 (k15\_euclid X0)) \wedge \\
& (v5\_rltopsp1 (k15\_euclid X0))))))))))
\end{aligned} \tag{8}$$

Assume the following.

$$\forall X0.(l1\_rltopsp1 X0) \Rightarrow ((l1\_rlvect\_1 X0) \wedge (l1\_pre\_topc X0)) \tag{9}$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow ((v5\_rltopsp1 (k15\_euclid X0)) \wedge (l1\_rltopsp1 (k15\_euclid X0))) \quad (10)$$

Assume the following.

$$\forall X0.(v6\_membered X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow (v7\_ordinal1 X1)) \quad (11)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k5\_numbers)) \Rightarrow (v6\_membered X0) \quad (12)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 (k1\_pre\_topc (k15\_euclid \\ & np\_2) X1)))) \Rightarrow (\forall X3.((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 ( \\ & u1\_struct\_0 (k1\_pre\_topc (k1\_pre\_topc (k15\_euclid np\_2) X1) \\ & X2)) (u1\_struct\_0 (k1\_pre\_topc (k15\_euclid np\_2) X1)))) \wedge (m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 (k1\_pre\_topc (k1\_pre\_topc \\ & (k15\_euclid np\_2) X1) X2)) (u1\_struct\_0 (k1\_pre\_topc (k15\_euclid \\ & np\_2) X1)))))) \Rightarrow (((X3 = k2\_partfun1 (u1\_struct\_0 (k15\_euclid \\ & np\_2)) (u1\_struct\_0 (k15\_euclid np\_2)) (k5\_jgraph\_4 X0) X2) \wedge \\ & ((X1 = k8\_struct\_0 (k15\_euclid np\_2)) \wedge (X2 = ReplSep (toset (\lambda X4 : \\ & \iota.m1\_subset\_1 X4 (u1\_struct\_0 (k15\_euclid np\_2)))) (\lambda X4 : \\ & \iota.(r1\_xxreal\_0 k6\_numbers (k18\_euclid X4)) \wedge (X4 \neq k4\_struct\_0 \\ & (k15\_euclid np\_2))) (\lambda X4 : \iota.X4))) \Rightarrow ((r1\_xxreal\_0 X0 (k1\_real\_1 \\ & np\_1)) \vee ((r1\_xxreal\_0 np\_1 X0) \vee (v5\_pre\_topc X3 (k1\_pre\_topc \\ & (k1\_pre\_topc (k15\_euclid np\_2) X1) X2) (k1\_pre\_topc (k15\_euclid \\ & np\_2) X1)))))) \end{aligned}$$