

t27\_jordan5a (TMMN-  
rgQd8FdzqR3Pp4wD5W2xBSNvfbuJtgf)

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Let  $l1\_pre\_topc : \iota \Rightarrow o$  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  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_topmetr : \iota$  be given. Let  $r1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_pscomp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_rcomp\_1 : \iota \Rightarrow o$  be given. Let  $v4\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $k8\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 k3\_topmetr))) \Rightarrow ((X0 = \\ & X1) \Rightarrow ((v2\_rcomp\_1 X0) \Leftrightarrow (v4\_pre\_topc X1 k3\_topmetr)))) \end{aligned} \quad (1)$$

Assume the following.

$$u1\_struct\_0 k3\_topmetr = k1\_numbers \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & ((\neg v1\_xboole\_0 X1) \wedge ((\neg v1\_xboole\_0 X3) \wedge (((v1\_funct\_1 X4) \wedge (( \\ & v1\_funct\_2 X4 X0 X1) \wedge (m1\_subset\_1 X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 X1)))))) \wedge ((v1\_funct\_1 X5) \wedge ((v1\_funct\_2 X5 X2 X3) \wedge (m1\_subset\_1 \\ & X5 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X2 X3))))))))) \Rightarrow ((r1\_funct\_2 X0 X1 \\ & X2 X3 X4 X5) \Leftrightarrow (X4 = X5)) \end{aligned} \quad (3)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_numbers \quad (4)$$

Assume the following.

$$(v2\_pre\_topc k3\_topmetr) \wedge (l1\_pre\_topc k3\_topmetr) \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(l1\_pre\_topc\ X1) \Rightarrow (\forall X2. \\
& ((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0 \\
& X1)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0 \\
& X0)\ (u1\_struct\_0\ X1)))))) \Rightarrow ((v5\_pre\_topc\ X2\ X0\ X1) \Leftrightarrow (\forall X3. \\
& (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1))) \Rightarrow ((v4\_pre\_topc \\
& X3\ X1) \Rightarrow (v4\_pre\_topc\ (k8\_relset\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0 \\
& X1)\ X2\ X3)\ X0))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.((v1\_funct\_1\ X1) \wedge (( \\
& v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ k1\_numbers) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k1\_numbers)))))) \Rightarrow ((v1\_pscomp\_1 \\
& X1\ X0) \Leftrightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ k1\_numbers)) \Rightarrow \\
& ((v2\_rcomp\_1\ X2) \Rightarrow (v4\_pre\_topc\ (k8\_relset\_1\ (u1\_struct\_0\ X0) \\
& k1\_numbers\ X1\ X2)\ X0))))))
\end{aligned} \tag{7}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.((v1\_funct\_1\ X1) \wedge (( \\
& v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ k1\_numbers) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k1\_numbers)))))) \Rightarrow (\forall X2.( \\
& (v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0 \\
& k3\_topmetr)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0 \\
& X0)\ (u1\_struct\_0\ k3\_topmetr)))))) \Rightarrow ((r1\_funct\_2\ (u1\_struct\_0 \\
& X0)\ k1\_numbers\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ k3\_topmetr)\ X1\ X2) \Rightarrow \\
& ((v1\_pscomp\_1\ X1\ X0) \Leftrightarrow (v5\_pre\_topc\ X2\ X0\ k3\_topmetr))))))
\end{aligned}$$