

# l49\_jordan (TMHCu- uyB5PxW1sF6eb8X8ppheNCFXnv6Mgc)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v1\_borsuk\_2 : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_borsuk\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_borsuk\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge ((v1\_borsuk\_2 \\
 & X0) \wedge (l1\_pre\_topc X0)))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 \\
 & X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. \\
 & (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\forall X4. (m1\_borsuk\_2 X4 \\
 & X0 X1 X2) \Rightarrow (\forall X5. (m1\_borsuk\_2 X5 X0 X2 X3) \Rightarrow (k2\_relset\_1 (u1\_struct\_0 \\
 & X0) (k1\_borsuk\_2 X0 X1 X2 X3 X4 X5) = k4\_subset\_1 (u1\_struct\_0 X0) \\
 & (k2\_relset\_1 (u1\_struct\_0 X0) X4) (k2\_relset\_1 (u1\_struct\_0 X0) \\
 & X5))))))))) \\
 & \tag{1}
 \end{aligned}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\
 & (((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0))) \wedge ( \\
 & (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge ((m1\_subset\_1 X2 (u1\_struct\_0 \\
 & X0)) \wedge ((m1\_subset\_1 X3 (u1\_struct\_0 X0)) \wedge ((m1\_borsuk\_2 X4 X0 X1 \\
 & X2) \wedge (m1\_borsuk\_2 X5 X0 X2 X3)))))) \Rightarrow (m1\_borsuk\_2 (k1\_borsuk\_2 \\
 & X0 X1 X2 X3 X4 X5) X0 X1 X3) \\
 & \tag{2}
 \end{aligned}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge ((v1\_borsuk\_2 \\ & X0) \wedge (l1\_pre\_topc X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 \\ & (u1\_struct\_0 X0)) \Rightarrow (\forall X5.(m1\_subset\_1 X5 (u1\_struct\_0 X0)) \Rightarrow \\ & (\forall X6.(m1\_borsuk\_2 X6 X0 X1 X2) \Rightarrow (\forall X7.(m1\_borsuk\_2 \\ & X7 X0 X2 X3) \Rightarrow (\forall X8.(m1\_borsuk\_2 X8 X0 X3 X4) \Rightarrow (\forall X9.( \\ & m1\_borsuk\_2 X9 X0 X4 X5) \Rightarrow (k2\_relset\_1 (u1\_struct\_0 X0) (k1\_borsuk\_2 \\ & X0 X1 X4 X5 (k1\_borsuk\_2 X0 X1 X3 X4 (k1\_borsuk\_2 X0 X1 X2 X3 X6 X7) X8) \\ & X9) = k4\_subset\_1 (u1\_struct\_0 X0) (k4\_subset\_1 (u1\_struct\_0 X0) \\ & (k4\_subset\_1 (u1\_struct\_0 X0) (k2\_relset\_1 (u1\_struct\_0 X0) X6) \\ & (k2\_relset\_1 (u1\_struct\_0 X0) X7)) (k2\_relset\_1 (u1\_struct\_0 \\ & X0) X8)) (k2\_relset\_1 (u1\_struct\_0 X0) X9)))))))))) \end{aligned}$$