

# t67\_flang\_3 (TMXhKXcbqdSb- HuJt5VNVMTcvaMxjbky1VAr)

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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  $k8\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_flang\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_catalan2 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k8\_afinsq\_1 \\ & X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k8\_afinsq\_1 X0)) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (k8\_afinsq\_1 X0)) \Rightarrow (((X2 \in k2\_flang\_3 X0 X1) \wedge (X3 \in \\ & k2\_flang\_3 X0 X1)) \Rightarrow (k1\_flang\_1 X0 X2 X3 \in k2\_flang\_3 X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. k3\_catalan2 X0 = k8\_afinsq\_1 X0 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k3\_catalan2 X0))) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k3\_catalan2 \\ & X0)))) \Rightarrow (m1\_subset\_1 (k6\_flang\_1 X0 X1 X2) (k1\_zfmisc\_1 (k3\_catalan2 \\ & X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k3\_catalan2 \\ & X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k3\_catalan2 \\ & X0))) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k3\_catalan2 \\ & X0))) \Rightarrow ((X3 = k6\_flang\_1 X0 X1 X2) \Leftrightarrow (\forall X4. (X4 \in X3) \Leftrightarrow (\exists X5. \\ & (m1\_subset\_1 X5 (k3\_catalan2 X0)) \wedge (\exists X6. (m1\_subset\_1 X6 \\ & (k3\_catalan2 X0)) \wedge ((X5 \in X1) \wedge ((X6 \in X2) \wedge (X4 = k1\_flang\_1 X0 X5 X6)))))))))) \end{aligned} \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k8\_afinsq\_1 \\ & X0)))\Rightarrow(\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k8\_afinsq\_1 \\ & X0)))\Rightarrow(\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 (k8\_afinsq\_1 \\ & X0)))\Rightarrow(((r1\_tarski X1 (k2\_flang\_3 X0 X2))\wedge(r1\_tarski X3 (k2\_flang\_3 \\ & X0 X2)))\Rightarrow(r1\_tarski (k6\_flang\_1 X0 X1 X3) (k2\_flang\_3 X0 X2)))))) \end{aligned}$$