

t83\_flang\_2  
(TMF966DimdP13EQjtK8Sa6BcxaiKtxDaghD)

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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  $k2\_flang\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_flang\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_catalan2 : \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ (k8\_afinsq\_1 X1))) \Rightarrow ((X0 \in k2\_flang\_2 X1 X2) \Leftrightarrow ((X0 = k2\_flang\_1 X1) \vee \\ (X0 \in X2))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k3\_catalan2 X0)) \Rightarrow (k4\_flang\_1 \\ X0 X1 = k1\_tarski X1) \tag{2}$$

Assume the following.

$$\forall X0.k3\_catalan2 X0 = k8\_afinsq\_1 X0 \tag{3}$$

Assume the following.

$$\forall X0.m1\_subset\_1 (k2\_flang\_1 X0) (k3\_catalan2 X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1\_tarski X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow \\ (X2 = X0)) \tag{5}$$

**Theorem 1**

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ (k8\_afinsq\_1 X1))) \Rightarrow (\neg(X0 \in X2) \wedge ((X0 \neq k2\_flang\_1 X1) \wedge (k2\_flang\_2 \\ X1 X2 = k4\_flang\_1 X1 (k2\_flang\_1 X1)))) \end{aligned}$$