

t43\_flang\_3  
(TMS1AKFQiS5qksTSSgfz5s8u2ZmopZJCYri)

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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  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_flang\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_catalan2 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k8\_afinsq\_1 \\ & X0))) \Rightarrow (\forall X2. (v7\_ordinal1 X2) \Rightarrow (k6\_flang\_1 X0 (k1\_flang\_3 \\ & X0 X1 X2) (k8\_flang\_1 X0 X1) = k6\_flang\_1 X0 (k8\_flang\_1 X0 X1) (k1\_flang\_3 \\ & X0 X1 X2))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k8\_afinsq\_1 \\ & X0))) \Rightarrow (\forall X2. (v7\_ordinal1 X2) \Rightarrow (k6\_flang\_1 X0 (k1\_flang\_3 \\ & X0 X1 X2) (k8\_flang\_1 X0 X1) = k1\_flang\_3 X0 X1 X2)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k3\_catalan2 \\ & X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k3\_catalan2 \\ & X0))) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k3\_catalan2 \\ & X0))) \Rightarrow (\forall X4. (m1\_subset\_1 X4 (k1\_zfmisc\_1 (k3\_catalan2 \\ & X0))) \Rightarrow (((r1\_tarski X1 X2) \wedge (r1\_tarski X3 X4)) \Rightarrow (r1\_tarski (k6\_flang\_1 \\ & X0 X1 X3) (k6\_flang\_1 X0 X2 X4)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. r1\_tarski X0 X0 \tag{4}$$

Assume the following.

$$\forall X0. k3\_catalan2 X0 = k8\_afinsq\_1 X0 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k3\_catalan2 X0)))\Rightarrow(m1\_subset\_1 (k8\_flang\_1 X0 X1) (k1\_zfmisc\_1 (k3\_catalan2 X0))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1 X1 (k1\_zfmisc\_1 (k8\_afinsq\_1 X0)))\wedge(v7\_ordinal1 X2))\Rightarrow(m1\_subset\_1 (k1\_flang\_3 X0 X1 X2) (k1\_zfmisc\_1 (k8\_afinsq\_1 X0))) \quad (7)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k8\_afinsq\_1 X0)))\Rightarrow(\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k8\_afinsq\_1 X0)))\Rightarrow(\forall X3.(v7\_ordinal1 X3)\Rightarrow((r1\_tarski X1 (k8\_flang\_1 X0 X2))\Rightarrow((r1\_tarski (k6\_flang\_1 X0 (k1\_flang\_3 X0 X2 X3) X1) (k1\_flang\_3 X0 X2 X3))\wedge(r1\_tarski (k6\_flang\_1 X0 X1 (k1\_flang\_3 X0 X2 X3)) (k1\_flang\_3 X0 X2 X3)))))) \end{aligned}$$