

t48\_flang\_3  
(TMQAWZ6XVWVYVHoMZMPaifuQNHZ9aedTkTu)

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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  $k2\_flang\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k7\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_catalan2 : \iota \Rightarrow \iota$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. k3\_catalan2 X0 = k8\_afinsq\_1 X0 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1\_subset\_1 X1 (k1\_zfmisc\_1 (k3\_catalan2 X0))) \wedge (v7\_ordinal1 X2)) \Rightarrow (m1\_subset\_1 (k7\_flang\_1 X0 X1 X2) (k1\_zfmisc\_1 (k3\_catalan2 X0))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k3\_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. (X2 \in X3) \wedge (X3 \in X0))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k8\_afinsq\_1 X0))) \Rightarrow (k2\_flang\_3 X0 X1 = k3\_tarski (ReplSep (toset (\lambda X2 : \iota. m1\_subset\_1 X2 (k1\_zfmisc\_1 (k8\_afinsq\_1 X0)))) (\lambda X2 : \iota. \exists X3. (v7\_ordinal1 X3) \wedge ((\neg r1\_xxreal\_0 X3 k6\_numbers) \wedge (X2 = k7\_flang\_1 X0 X1 X3)))) (\lambda X2 : \iota. X2))) \quad (4)$$

**Theorem 1**

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k8\_afinsq\_1 X0))) \Rightarrow ((X1 \in k2\_flang\_3 X0 X2) \Leftrightarrow (\exists X3. (v7\_ordinal1 X3) \wedge ((\neg r1\_xxreal\_0 X3 k6\_numbers) \wedge (X1 \in k7\_flang\_1 X0 X2 X3))))$$