

t32\_flang\_1 (TM-  
cryKVLNBRQqCVa17qX1eTNvyXdp2qVFZJ)

October 27, 2020

Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_catalan2 : \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k6\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k4\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_flang\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k1\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k8\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k3\_catalan2 X0))) \Rightarrow (k7\_flang\_1 X0 X1 k6\_numbers = k4\_flang\_1 X0 (k2\_flang\_1 X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k3\_catalan2 X0))) \Rightarrow (\forall X2. (v7\_ordinal1 X2) \Rightarrow (k7\_flang\_1 X0 X1 (k2\_xcmplx\_0 X2 np\_1) = k6\_flang\_1 X0 (k7\_flang\_1 X0 X1 X2) X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k3\_catalan2 X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k3\_catalan2 X0))) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k3\_catalan2 X0))) \Rightarrow (k6\_flang\_1 X0 (k6\_flang\_1 X0 X1 X2) X3 = k6\_flang\_1 X0 X1 (k6\_flang\_1 X0 X2 X3)))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k3\_catalan2 X0))) \Rightarrow ((k6\_flang\_1 X0 X1 (k4\_flang\_1 X0 (k2\_flang\_1 X0)) = X1) \wedge (k6\_flang\_1 X0 (k4\_flang\_1 X0 (k2\_flang\_1 X0)) X1 = X1)) \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 \ np\_1) \wedge (m2\_subset\_1 \ np\_1 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_1 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_1 \ k1\_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0 : \iota \Rightarrow o. ((X0 \ k6\_numbers) \wedge (\forall X1. (v7\_ordinal1 \\ & X1) \Rightarrow ((X0 \ X1) \Rightarrow (X0 \ (k1\_nat\_1 \ X1 \ np\_1)))))) \Rightarrow (\forall X1. (v7\_ordinal1 \\ & X1) \Rightarrow (X0 \ X1)) \end{aligned} \quad (6)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (7)$$

Assume the following.

$$\forall X0. k3\_catalan2 \ X0 = k8\_afinsq\_1 \ X0 \quad (8)$$

Assume the following.

$$\forall X0. k2\_flang\_1 \ X0 = k4\_afinsq\_1 \ X0 \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v7\_ordinal1 \ X0) \wedge (m1\_subset\_1 \ X1 \ k5\_numbers)) \Rightarrow \\ & (k1\_nat\_1 \ X0 \ X1 = k2\_xcmplx\_0 \ X0 \ X1) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \\ & (k3\_catalan2 \ X0))) \wedge (v7\_ordinal1 \ X2)) \Rightarrow (m1\_subset\_1 \ (k7\_flang\_1 \\ & X0 \ X1 \ X2) \ (k1\_zfmisc\_1 \ (k3\_catalan2 \ X0))) \end{aligned} \quad (11)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ (k3\_catalan2 \\ & X0))) \Rightarrow (\forall X2. (v7\_ordinal1 \ X2) \Rightarrow (k6\_flang\_1 \ X0 \ (k7\_flang\_1 \\ & X0 \ X1 \ X2) \ X1 = k6\_flang\_1 \ X0 \ X1 \ (k7\_flang\_1 \ X0 \ X1 \ X2))) \end{aligned}$$