

# t115\_flang\_2 (TMWkQTwuhaA- SobprYZzzB5eLUvmhrwTCEHN)

October 27, 2020

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  $k2\_flang\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_flang\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_catalan2 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k8\_afinsq\_1 X0))) \Rightarrow (k2\_flang\_2 X0 X1 = k4\_subset\_1 (k8\_afinsq\_1 X0) (k4\_flang\_1 X0 (k2\_flang\_1 X0)) X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k2\_xboole\_0 X0 (k4\_xboole\_0 X1 X0) = k2\_xboole\_0 X0 X1 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k7\_subset\_1 X0 X1 X2 = k4\_xboole\_0 X1 X2) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 X0))) \Rightarrow (k4\_subset\_1 X0 X1 X2 = k2\_xboole\_0 X1 X2) \quad (4)$$

Assume the following.

$$\forall X0. k3\_catalan2 X0 = k8\_afinsq\_1 X0 \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (m1\_subset\_1 (k7\_subset\_1 X0 X1 X2) (k1\_zfmisc\_1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k3\_catalan2 X0))\Rightarrow(m1\_subset\_1 (k4\_flang\_1 X0 X1) (k1\_zfmisc\_1 (k3\_catalan2 X0))) \quad (7)$$

Assume the following.

$$\forall X0.m1\_subset\_1 (k2\_flang\_1 X0) (k3\_catalan2 X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0 X0 X1 = k2\_xboole\_0 X1 X0 \quad (9)$$

**Theorem 1**

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k8\_afinsq\_1 X0)))\Rightarrow(k2\_flang\_2 X0 X1 = k2\_flang\_2 X0 (k7\_subset\_1 (k8\_afinsq\_1 X0) X1 (k4\_flang\_1 X0 (k2\_flang\_1 X0))))$$