

t69_flang_1 (TMdxkVTkey-
bYmS6ykjXRiBWRmL8Q5hi7ywd)

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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 $k3_catalan2 : \iota \Rightarrow \iota$ be given. Let $k8_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k3_catalan2 X0)) \Rightarrow ((X2 \in k8_flang_1 \\ X0 X1) \Rightarrow (k8_flang_1 X0 X1 = k8_flang_1 X0 (k4_subset_1 (k3_catalan2 \\ X0) X1 (k4_flang_1 X0 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow (k2_flang_1 X0 \in k8_flang_1 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k2_xboole_0 X0 (k4_xboole_0 X1 X0) = k2_xboole_0 \\ X0 X1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X1 (k1_zfmisc_1 \\ X0)) \Rightarrow (k7_subset_1 X0 X1 X2 = k4_xboole_0 X1 X2) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 \\ X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (k4_subset_1 X0 X1 X2 = \\ k2_xboole_0 X1 X2) \quad (5)$$

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

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 X0)))\Rightarrow(k8_flang_1 X0 X1 = k8_flang_1 X0 (k7_subset_1 (k3_catalan2 X0) X1 (k4_flang_1 X0 (k2_flang_1 X0))))$$