

t41_flang_3 (TMWqefX- AQYt9dsY53KkAJARxU3hThXYUjJ4)

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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 $k6_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_flang_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_flang_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_catalan2 : \iota \Rightarrow \iota$ be given. Let $k1_flang_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ X0))) \Rightarrow (\forall X2. (v7_ordinal1 X2) \Rightarrow (k6_flang_1 X0 (k8_flang_1 \\ X0 X1) (k7_flang_1 X0 X1 X2) = k1_flang_3 X0 X1 X2)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow (k6_flang_1 X0 (k6_flang_1 X0 X1 X2) X3 = k6_flang_1 X0 X1 (\\ k6_flang_1 X0 X2 X3)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ X0))) \Rightarrow (\forall X2. (v7_ordinal1 X2) \Rightarrow (k6_flang_1 X0 (k2_flang_2 \\ X0 X1) (k7_flang_1 X0 X1 X2) = k1_flang_2 X0 X1 X2 (k2_xcmplx_0 X2 np_1))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ X0))) \Rightarrow (k6_flang_1 X0 (k2_flang_2 X0 X1) (k8_flang_1 X0 X1) = k8_flang_1 \\ X0 X1) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ X0)))\Rightarrow(k6_flang_1 X0 (k2_flang_2 X0 X1) (k8_flang_1 X0 X1) = k6_flang_1 \\ X0 (k8_flang_1 X0 X1) (k2_flang_2 X0 X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ X0)))\Rightarrow(\forall X2.(v7_ordinal1 X2)\Rightarrow(k6_flang_1 X0 (k2_flang_2 \\ X0 X1) (k7_flang_1 X0 X1 X2) = k6_flang_1 X0 (k7_flang_1 X0 X1 X2) (\\ k2_flang_2 X0 X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.k9_setfam_1 X0 = k1_zfmisc_1 X0 \quad (7)$$

Assume the following.

$$\forall X0.k3_catalan2 X0 = k8_afinsq_1 X0 \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ X0)))\Rightarrow(m1_subset_1 (k8_flang_1 X0 X1) (k1_zfmisc_1 (k3_catalan2 \\ X0))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 \\ (k3_catalan2 X0)))\wedge(v7_ordinal1 X2))\Rightarrow(m1_subset_1 (k7_flang_1 \\ X0 X1 X2) (k1_zfmisc_1 (k3_catalan2 X0))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ X0)))\Rightarrow(m1_subset_1 (k2_flang_2 X0 X1) (k1_zfmisc_1 (k8_afinsq_1 \\ X0))) \end{aligned} \quad (11)$$

Theorem 1

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ X0)))\Rightarrow(\forall X2.(v7_ordinal1 X2)\Rightarrow(k6_flang_1 X0 (k1_flang_3 \\ X0 X1 X2) (k2_flang_2 X0 X1) = k1_flang_3 X0 X1 X2)) \end{aligned}$$