

t46_flang_1
(TMa4AQUUn76gJx96N19ToyPmMCdFCD5Tu1ZR)

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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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ & X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k3_catalan2 X0)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (k3_catalan2 X0)) \Rightarrow (((X2 \in k8_flang_1 X0 X1) \wedge (X3 \in \\ & k8_flang_1 X0 X1)) \Rightarrow (k1_flang_1 X0 X2 X3 \in k8_flang_1 X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow \\ & (X2 \in X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ & X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k3_catalan2 \\ & X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (k3_catalan2 \\ & X0))) \Rightarrow ((X3 = k6_flang_1 X0 X1 X2) \Leftrightarrow (\forall X4. (X4 \in X3) \Leftrightarrow (\exists X5. \\ & (m1_subset_1 X5 (k3_catalan2 X0)) \wedge (\exists X6. (m1_subset_1 X6 \\ & (k3_catalan2 X0)) \wedge ((X5 \in X1) \wedge ((X6 \in X2) \wedge (X4 = k1_flang_1 X0 X5 X6)))))))))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ & X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k3_catalan2 \\ & X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (k3_catalan2 \\ & X0))) \Rightarrow (((r1_tarski X1 (k8_flang_1 X0 X2)) \wedge (r1_tarski X3 (k8_flang_1 \\ & X0 X2))) \Rightarrow (r1_tarski (k6_flang_1 X0 X1 X3) (k8_flang_1 X0 X2)))))) \end{aligned}$$