

t21_flang_1
(TMXfQj3g2QpPMYzrdY6vySgDo9ARWmpU2di)

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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 $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k7_subset_1 X0 X1 X2 = k4_xboole_0 X1 X2) \quad (1)$$

Assume the following.

$$\forall X0.k3_catalan2 X0 = k8_afinsq_1 X0 \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (m1_subset_1 (k7_subset_1 X0 X1 X2) (k1_zfmisc_1 X0)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 X0))) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k3_catalan2 X0)))) \Rightarrow (m1_subset_1 (k6_flang_1 X0 X1 X2) (k1_zfmisc_1 (k3_catalan2 X0))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k4_xboole_0 X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (6)$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\
& X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k3_catalan2 \\
& X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (k3_catalan2 \\
& X0))) \Rightarrow ((X3 = k6_flang_1 X0 X1 X2) \Leftrightarrow (\forall X4. (X4 \in X3) \Leftrightarrow (\exists X5. \\
& (m1_subset_1 X5 (k3_catalan2 X0)) \wedge (\exists X6. (m1_subset_1 X6 \\
& (k3_catalan2 X0)) \wedge ((X5 \in X1) \wedge ((X6 \in X2) \wedge (X4 = k1_flang_1 X0 X5 X6)))))))))) \\
& \hspace{15em} (7)
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\
& X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k3_catalan2 \\
& X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (k3_catalan2 \\
& X0))) \Rightarrow ((r1_tarski (k7_subset_1 (k3_catalan2 X0) (k6_flang_1 \\
& X0 X1 X2) (k6_flang_1 X0 X1 X3)) (k6_flang_1 X0 X1 (k7_subset_1 (k3_catalan2 \\
& X0) X2 X3))) \wedge (r1_tarski (k7_subset_1 (k3_catalan2 X0) (k6_flang_1 \\
& X0 X2 X1) (k6_flang_1 X0 X3 X1)) (k6_flang_1 X0 (k7_subset_1 (k3_catalan2 \\
& X0) X2 X3) X1))))))
\end{aligned}$$