

t6_intpro_1
(TMHQ3kMLG4NdJ7afJhLaVcDGWCTfaBEoQVc)

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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 $k1_intpro_1 : \iota$ be given. Let $k3_intpro_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_intpro_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_intpro_1 : \iota \Rightarrow \iota$ be given. Let $v8_intpro_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_intpro_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_intpro_1 : \iota$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_intpro_1)) \Rightarrow (m1_subset_1 (k7_intpro_1 X0) (k1_zfmisc_1 k1_intpro_1)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_intpro_1) \wedge (m1_subset_1 X1 k1_intpro_1)) \Rightarrow (m1_subset_1 (k5_intpro_1 X0 X1) k1_intpro_1) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_intpro_1) \wedge (m1_subset_1 X1 k1_intpro_1)) \Rightarrow (m1_subset_1 (k3_intpro_1 X0 X1) k1_intpro_1) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_intpro_1)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 k1_intpro_1)) \Rightarrow ((X1 = k7_intpro_1 \\ & X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 k1_intpro_1) \Rightarrow ((X2 \in X1) \Leftrightarrow (\forall X3. \\ & (m1_subset_1 X3 (k1_zfmisc_1 k1_intpro_1)) \Rightarrow (((v8_intpro_1 X3) \wedge \\ & (r1_tarski X0 X3)) \Rightarrow (X2 \in X3)))))) \quad (4) \end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_intpro_1)) \Rightarrow ((v8_intpro_1 \\
& X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 k1_intpro_1) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2 k1_intpro_1) \Rightarrow (\forall X3.(m1_subset_1 X3 k1_intpro_1) \Rightarrow ((\\
& k3_intpro_1 X1 (k3_intpro_1 X2 X1) \in X0) \wedge ((k3_intpro_1 (k3_intpro_1 \\
& X1 (k3_intpro_1 X2 X3)) (k3_intpro_1 (k3_intpro_1 X1 X2) (k3_intpro_1 \\
& X1 X3)) \in X0) \wedge ((k3_intpro_1 (k4_intpro_1 X1 X2) X1 \in X0) \wedge ((k3_intpro_1 \\
& (k4_intpro_1 X1 X2) X2 \in X0) \wedge ((k3_intpro_1 X1 (k3_intpro_1 X2 (k4_intpro_1 \\
& X1 X2)) \in X0) \wedge ((k3_intpro_1 X1 (k5_intpro_1 X1 X2) \in X0) \wedge ((k3_intpro_1 \\
& X2 (k5_intpro_1 X1 X2) \in X0) \wedge ((k3_intpro_1 (k3_intpro_1 X1 X3) (\\
& k3_intpro_1 (k3_intpro_1 X2 X3) (k3_intpro_1 (k5_intpro_1 X1 X2) \\
& X3)) \in X0) \wedge ((k3_intpro_1 k2_intpro_1 X1 \in X0) \wedge (((X1 \in X0) \wedge (k3_intpro_1 \\
& X1 X2 \in X0)) \Rightarrow (X2 \in X0))))))))))))) \\
& \tag{5}
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_intpro_1)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 k1_intpro_1) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_intpro_1) \Rightarrow \\
& (k3_intpro_1 X1 (k5_intpro_1 X1 X2) \in k7_intpro_1 X0))
\end{aligned}$$