

t38_subset_1
(TMLSvGKtc2MqAofYCowmWAP5RYB3842kEQt)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarSKI : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 X0) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 X0) \Rightarrow (\forall X3. (m1_subset_1 X3 X0) \Rightarrow (\forall X4. (m1_subset_1 \\ & X4 X0) \Rightarrow ((X0 \neq k1_xboole_0) \Rightarrow (m1_subset_1 (k2_enumset1 X1 X2 X3 X4) \\ & (k1_zfmisc_1 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 X0) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 X0) \Rightarrow ((X0 \neq k1_xboole_0) \Rightarrow (m1_subset_1 (k2_tarSKI X1 X2) (k1_zfmisc_1 \\ & X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & k4_enumset1 X0 X1 X2 X3 X4 X5 = k2_xboole_0 (k2_enumset1 X0 X1 X2 X3) \\ & (k2_tarSKI X4 X5) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 \\ & X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (k4_subset_1 X0 X1 X2 = \\ & k2_xboole_0 X1 X2) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 \\ & X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (m1_subset_1 (k4_subset_1 \\ & X0 X1 X2) (k1_zfmisc_1 X0)) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.(m1_subset_1 X1 X0) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 X0) \Rightarrow (\forall X3.(m1_subset_1 X3 X0) \Rightarrow (\forall X4.(m1_subset_1 \\ & X4 X0) \Rightarrow (\forall X5.(m1_subset_1 X5 X0) \Rightarrow (\forall X6.(m1_subset_1 \\ & X6 X0) \Rightarrow ((X0 \neq k1_xboole_0) \Rightarrow (m1_subset_1 (k4_enumset1 X1 X2 X3 X4 \\ & X5 X6) (k1_zfmisc_1 X0)))))))))) \end{aligned}$$