

t62_relset_2
(TMdfeDdK9hKJGSUqwmJcpguBgrEuzHGTrXJ)

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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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_relset_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 X1)) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow ((r1_tarski \\ & X2 (k6_relset_2 X1 X0 X3 (k3_relset_1 X0 X1 X4))) \Leftrightarrow (r1_tarski X3 (\\ & k6_relset_2 X0 X1 X2 X4)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((m1_subset_1 X2 \\ & (k1_zfmisc_1 X0)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))) \Rightarrow (m1_subset_1 (k6_relset_2 X0 X1 X2 X3) (k1_zfmisc_1 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))) \Rightarrow (m1_subset_1 (k3_relset_1 X0 X1 X2) (k1_zfmisc_1 \\ & (k2_zfmisc_1 X1 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 X1)) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow ((r1_tarski \\ & X2 (k6_relset_2 X1 X0 (k6_relset_2 X0 X1 X2 X4) (k3_relset_1 X0 X1 \\ & X4))) \wedge (r1_tarski X3 (k6_relset_2 X0 X1 (k6_relset_2 X1 X0 X3 (k3_relset_1 \\ & X0 X1 X4) X4)))))) \end{aligned}$$