

t56_rewrite2

(TMPM5XiytchmrqfQJNk9tG6DBPj3QJXtbDG)

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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 $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $r4_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow \\ & \quad (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 X0)) \Rightarrow ((r1_relset_1 \\ & (k8_afinsq_1 X0) (k8_afinsq_1 X0) X1 X2) \Rightarrow (r1_tarski (k8_rewrite2 \\ & \quad X0 X1 X3) (k8_rewrite2 X0 X2 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow \\ & \quad (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 X0)) \Rightarrow ((r4_rewrite2 \\ & X0 X1 X2 X3) \Leftrightarrow (k8_rewrite2 X0 X1 X3 = k8_rewrite2 X0 X2 X3)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow \\ & \quad (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k8_afinsq_1 \\ & \quad X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X4. (m1_subset_1 X4 (k8_afinsq_1 \\ & X0) \Rightarrow (((r4_rewrite2 X0 X1 X2 X4) \wedge ((r1_relset_1 (k8_afinsq_1 X0) \\ & (k8_afinsq_1 X0) X1 X3) \wedge (r1_relset_1 (k8_afinsq_1 X0) (k8_afinsq_1 \\ & X0) X3 X2)) \Rightarrow ((r4_rewrite2 X0 X1 X3 X4) \wedge (r4_rewrite2 X0 X3 X2 X4)))))) \end{aligned}$$