

t19_rewrite2

(TMVkvvpjQ17hnjiQi1UN9jdhjo2FxQU6N5t)

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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 $r1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & \quad X2 (k1_zfmisc_1 (k2_zfmisc_1 (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow \\ & \quad (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 X0)) \Rightarrow (\forall X4. (m1_subset_1 \\ & \quad X4 (k8_afinsq_1 X0)) \Rightarrow (((r1_relset_1 (k8_afinsq_1 X0) (k8_afinsq_1 \\ & \quad X0) X1 X2) \wedge (r1_rewrite2 X0 X1 X3 X4)) \Rightarrow (r1_rewrite2 X0 X2 X3 X4)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & \quad X2 (k8_afinsq_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 \\ & \quad X0)) \Rightarrow ((r2_rewrite2 X0 X1 X2 X3) \Leftrightarrow (\exists X4. (m1_subset_1 X4 (k8_afinsq_1 \\ & \quad X0)) \wedge (\exists X5. (m1_subset_1 X5 (k8_afinsq_1 X0)) \wedge (\exists X6. \\ & \quad (m1_subset_1 X6 (k8_afinsq_1 X0)) \wedge (\exists X7. (m1_subset_1 X7 \\ & \quad (k8_afinsq_1 X0)) \wedge ((X2 = k1_flang_1 X0 (k1_flang_1 X0 X4 X6) X5) \wedge \\ & \quad ((X3 = k1_flang_1 X0 (k1_flang_1 X0 X4 X7) X5) \wedge (r1_rewrite2 X0 X1 \\ & \quad X6 X7)))))))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & \quad (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & \quad X2 (k1_zfmisc_1 (k2_zfmisc_1 (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow \\ & \quad (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 X0)) \Rightarrow (\forall X4. (m1_subset_1 \\ & \quad X4 (k8_afinsq_1 X0)) \Rightarrow (((r1_relset_1 (k8_afinsq_1 X0) (k8_afinsq_1 \\ & \quad X0) X1 X2) \wedge (r2_rewrite2 X0 X1 X3 X4)) \Rightarrow (r2_rewrite2 X0 X2 X3 X4)))))) \end{aligned}$$