

t13_rewrite2

(TMJnQN39fCtK2fjVmvPd6nVfa6THSkCXrrJ)

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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 $r2_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_catalan2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k8_afinsq_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 \\ & X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (k8_afinsq_1 X0)) \Rightarrow ((r2_rewrite2 \\ & X0 X1 X2 X3) \Rightarrow ((r2_rewrite2 X0 X1 (k1_flang_1 X0 X4 X2) (k1_flang_1 \\ & X0 X4 X3)) \wedge (r2_rewrite2 X0 X1 (k1_flang_1 X0 X2 X4) (k1_flang_1 X0 \\ & X3 X4))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. k3_catalan2 X0 = k8_afinsq_1 X0 \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k3_catalan2 \\ & X0)) \wedge (m1_subset_1 X2 (k3_catalan2 X0))) \Rightarrow (m1_subset_1 (k1_flang_1 \\ & X0 X1 X2) (k3_catalan2 X0)) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k8_afinsq_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 \\ & X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (k8_afinsq_1 X0)) \Rightarrow (\forall X5. \\ & (m1_subset_1 X5 (k8_afinsq_1 X0)) \Rightarrow ((r2_rewrite2 X0 X1 X2 X3) \Rightarrow (\\ & r2_rewrite2 X0 X1 (k1_flang_1 X0 (k1_flang_1 X0 X4 X2) X5) (k1_flang_1 \\ & X0 (k1_flang_1 X0 X4 X3) X5))))))))) \end{aligned}$$