

t37_rewrite2

(TMMrcgpWgBok1Hf54bXgBwSSD8y6eRStxns)

October 27, 2020

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 $r3_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k8_afinsq_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 \\ & X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (k8_afinsq_1 X0)) \Rightarrow ((r3_rewrite2 \\ & X0 X1 X2 X3) \Rightarrow ((r3_rewrite2 X0 X1 (k1_flang_1 X0 X2 X4) (k1_flang_1 \\ & X0 X3 X4)) \wedge (r3_rewrite2 X0 X1 (k1_flang_1 X0 X4 X2) (k1_flang_1 X0 \\ & X4 X3))))))) \end{aligned} \tag{1}$$

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

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k8_afinsq_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 \\ & X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (k8_afinsq_1 X0)) \Rightarrow (\forall X5. \\ & (m1_subset_1 X5 (k8_afinsq_1 X0)) \Rightarrow ((r3_rewrite2 X0 X1 X2 X3) \Rightarrow (\\ & r3_rewrite2 X0 X1 (k1_flang_1 X0 (k1_flang_1 X0 X4 X2) X5) (k1_flang_1 \\ & X0 (k1_flang_1 X0 X4 X3) X5))))))) \end{aligned}$$