

t40_rewrite3

(TMJoycrpnQmeiKkoASQh5RLqA7ApUFyRfVr)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_rewrite3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k8_afinsq_1 \\ & \quad X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (k8_afinsq_1 X0)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (k8_afinsq_1 X0)) \Rightarrow ((X1 = k1_flang_1 X0 X2 X3) \Rightarrow (\\ & \quad (r1_xxreal_0 (k1_afinsq_1 X2) (k1_afinsq_1 X1)) \wedge (r1_xxreal_0 \\ & \quad \quad (k1_afinsq_1 X3) (k1_afinsq_1 X1))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (\neg v1_xboole_0 X2) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (k8_afinsq_1 X2)) \Rightarrow (\forall X4. (m1_subset_1 X4 \\ & \quad (k8_afinsq_1 X2)) \Rightarrow (\forall X5. (m1_subset_1 X5 (k1_zfmisc_1 (\\ & \quad \quad k8_afinsq_1 X2))) \Rightarrow (\forall X6. ((\neg v2_struct_0 X6) \wedge (l1_rewrite3 \\ & X6 X5)) \Rightarrow (\neg (k4_tarski (k4_tarski X0 X3) (k4_tarski X1 X4) \in k1_rewrite3 \\ & X2 X5 X6) \wedge (\forall X7. (m1_subset_1 X7 (k8_afinsq_1 X2)) \Rightarrow (\neg (r1_rewrite3 \\ & \quad X5 X6 X0 X7 X1) \wedge (X3 = k1_flang_1 X2 X7 X4)))))))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (\neg v1_xboole_0 X2) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (k8_afinsq_1 X2)) \Rightarrow (\forall X4. (m1_subset_1 X4 \\ & \quad (k8_afinsq_1 X2)) \Rightarrow (\forall X5. (m1_subset_1 X5 (k1_zfmisc_1 (\\ & \quad \quad k8_afinsq_1 X2))) \Rightarrow (\forall X6. ((\neg v2_struct_0 X6) \wedge (l1_rewrite3 \\ & X6 X5)) \Rightarrow ((k4_tarski (k4_tarski X0 X3) (k4_tarski X1 X4) \in k1_rewrite3 \\ & X2 X5 X6) \Rightarrow (r1_xxreal_0 (k1_afinsq_1 X4) (k1_afinsq_1 X3))))))))) \end{aligned}$$