

t65_rewrite3

(TMJX9KqZTKWDgdP5WxiYhEDKNvtTZppVzcC)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_rewrite3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_flang_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $u1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_rewritel : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r2_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\
 & \quad (k8_afinsq_1 X0))) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge (l1_rewrite3 \\
 & \quad X2 X1)) \Rightarrow (\forall X3. (m1_rewritel X3 (k1_rewrite3 X0 X1 X2)) \Rightarrow (\forall X4. \\
 & \quad (v7_ordinal1 X4) \Rightarrow (\neg (X4 \in k4_finseq_1 X3) \wedge ((k2_xcmplx_0 X4 np_1 \in \\
 & \quad k4_finseq_1 X3) \wedge (\forall X5. (m1_subset_1 X5 (k8_afinsq_1 X0)) \Rightarrow \\
 & \quad (\forall X6. (m1_subset_1 X6 (k8_afinsq_1 X0)) \Rightarrow (\neg (X5 = k2_xtuple_0 \\
 & \quad (k1_funct_1 X3 (k2_xcmplx_0 X4 np_1)))) \wedge ((r1_rewrite3 X1 X2 (k1_xtuple_0 \\
 & \quad (k1_funct_1 X3 X4)) X6 (k1_xtuple_0 (k1_funct_1 X3 (k2_xcmplx_0 \\
 & \quad X4 np_1)))) \wedge (k2_xtuple_0 (k1_funct_1 X3 X4) = k1_flang_1 X0 X6 \\
 & \quad X5))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. (m1_subset_1 X1 (k8_afinsq_1 X0)) \Rightarrow (\forall X2. \\
 & \quad (m1_subset_1 X2 (k8_afinsq_1 X0)) \Rightarrow (((k1_flang_1 X0 X1 X2 = X1) \vee \\
 & \quad (k1_flang_1 X0 X2 X1 = X1)) \Rightarrow (X2 = k1_xboole_0))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. (\neg v1_xboole_0 X3) \Rightarrow \\
& (\forall X4. (m1_subset_1 X4 (k1_zfmisc_1 (k8_afinsq_1 X3))) \Rightarrow \\
& (\forall X5. (l1_rewrite3 X5 X4) \Rightarrow (\neg(\neg k2_flang_1 X3 \in k10_xtuple_0 \\
& (k9_xtuple_0 (u1_rewrite3 X4 X5)))) \wedge (r2_rewrite3 X3 X4 X5 X0 X1 X2 \\
& X1)))) \\
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\
& (k8_afinsq_1 X0))) \Rightarrow (\forall X2. (l1_rewrite3 X2 X1) \Rightarrow (\forall X3. \\
& \forall X4. \forall X5. \forall X6. (r2_rewrite3 X0 X1 X2 X3 X4 X5 X6) \Leftrightarrow \\
& (\exists X7. (m1_subset_1 X7 (k8_afinsq_1 X0)) \wedge (\exists X8. (m1_subset_1 \\
& X8 (k8_afinsq_1 X0)) \wedge ((X7 = X6) \wedge ((r1_rewrite3 X1 X2 X3 X8 X5) \wedge (X4 = \\
& k1_flang_1 X0 X8 X7)))))) \\
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\
& (k8_afinsq_1 X0))) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge (l1_rewrite3 \\
& X2 X1)) \Rightarrow ((\neg k2_flang_1 X0 \in k10_xtuple_0 (k9_xtuple_0 (u1_rewrite3 \\
& X1 X2))) \Rightarrow (\forall X3. (m1_rewrite1 X3 (k1_rewrite3 X0 X1 X2)) \Rightarrow (\\
& \forall X4. (v7_ordinal1 X4) \Rightarrow (\neg(X4 \in k4_finseq_1 X3) \wedge ((k2_xcmplx_0 \\
& X4 np_1 \in k4_finseq_1 X3) \wedge (k2_xtuple_0 (k1_funct_1 X3 X4) = k2_xtuple_0 \\
& (k1_funct_1 X3 (k2_xcmplx_0 X4 np_1)))))))))) \\
\end{aligned}$$