

t103_rewrite3 (TMZHfh- NGK9QmgvmbntpMiXKVpwJhncPKD7)

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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r4_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\
 & \quad (k8_afinsq_1 X0))) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge (l1_rewrite3 \\
 & \quad X2 X1)) \Rightarrow (\forall X3. \forall X4. k3_rewrite3 X0 X1 X2 X3 X4 = ReplSep \\
 & \quad (toset (\lambda X5 : \iota. m1_subset_1 X5 (u1_struct_0 X2))) (\lambda X5 : \\
 & \quad \iota. \exists X6. (m1_subset_1 X6 (u1_struct_0 X2)) \wedge ((X6 \in X4) \wedge \\
 & \quad r4_rewrite3 X0 X1 X2 X6 X3 X5))) (\lambda X5 : \iota. X5)))) \tag{1}
 \end{aligned}$$

Theorem 1

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. (\neg v1_xboole_0 X2) \Rightarrow (\forall X3. \\
 & \quad (m1_subset_1 X3 (k1_zfmisc_1 (k8_afinsq_1 X2))) \Rightarrow (\forall X4. \\
 & \quad ((\neg v2_struct_0 X4) \wedge (l1_rewrite3 X4 X3)) \Rightarrow (\forall X5. (m1_subset_1 \\
 & \quad X5 (u1_struct_0 X4)) \Rightarrow ((X5 \in k3_rewrite3 X2 X3 X4 X0 X1) \Leftrightarrow (\exists X6. \\
 & \quad (m1_subset_1 X6 (u1_struct_0 X4)) \wedge ((X6 \in X1) \wedge (r4_rewrite3 X2 X3 \\
 & \quad X4 X6 X0 X5))))))
 \end{aligned}$$