

t29_rusub_2

(TMdg63zLrwzA6rCpHWPeZ4Bj8cbbUHTueew)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $v2_bhsp_1 : \iota \Rightarrow o$ be given. Let $l1_bhsp_1 : \iota \Rightarrow o$ be given. Let $m1_rusub_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_bhsp_1 : \iota \Rightarrow o$ be given. Let $k1_rusub_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_rusub_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
 & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
 & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v2_bhsp_1 \\
 & X0) \wedge (l1_bhsp_1 X0)))))))))) \Rightarrow (\forall X1. (m1_rusub_1 X1 X0) \Rightarrow \\
 & (\forall X2. (m1_rusub_1 X2 X0) \Rightarrow (\forall X3. (m1_rusub_1 X3 X0) \Rightarrow \\
 & ((m1_rusub_1 X1 X2) \Rightarrow (k2_rusub_2 X0 X2 (k1_rusub_2 X0 X1 X3) = k1_rusub_2 \\
 & X0 (k2_rusub_2 X0 X1 X2) (k2_rusub_2 X0 X2 X3))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
 & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
 & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v2_bhsp_1 \\
 & X0) \wedge (l1_bhsp_1 X0)))))))))) \Rightarrow (\forall X1. (m1_rusub_1 X1 X0) \Rightarrow \\
 & (\forall X2. ((v1_bhsp_1 X2) \wedge (m1_rusub_1 X2 X0)) \Rightarrow ((m1_rusub_1 \\
 & X2 X1) \Leftrightarrow (k2_rusub_2 X0 X2 X1 = X2)))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
 & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
 & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v2_bhsp_1 \\
 & X0) \wedge (l1_bhsp_1 X0)))))))))) \Rightarrow (\forall X1. (m1_rusub_1 X1 X0) \Rightarrow \\
 & (\forall X2. (m1_rusub_1 X2 X0) \Rightarrow (k2_rusub_2 X0 X1 X2 = k2_rusub_2 \\
 & X0 X2 X1)))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge (v13_algstr_0 \\
& X0) \wedge (v2_rlvect_1 X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge \\
& ((v5_rlvect_1 X0) \wedge (v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 \\
& X0) \wedge (v2_bhspl_1 X0) \wedge (l1_bhspl_1 X0)))))) \wedge ((m1_rusub_1 \\
& X1 X0) \wedge (m1_rusub_1 X2 X0)) \Rightarrow ((v1_bhspl_1 (k1_rusub_2 X0 X1 X2)) \wedge \\
& (m1_rusub_1 (k1_rusub_2 X0 X1 X2) X0))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 \\
& X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (v2_bhspl_1 \\
& X0) \wedge (l1_bhspl_1 X0)))))) \Rightarrow (\forall X1. (m1_rusub_1 X1 X0) \Rightarrow \\
& (\forall X2. (m1_rusub_1 X2 X0) \Rightarrow (\forall X3. (m1_rusub_1 X3 X0) \Rightarrow \\
& (((v1_bhspl_1 X1) \wedge (m1_rusub_1 X1 X3)) \Rightarrow (k1_rusub_2 X0 X1 (k2_rusub_2 \\
& X0 X2 X3) = k2_rusub_2 X0 (k1_rusub_2 X0 X1 X2) X3))))))
\end{aligned}$$