

t5_rusub_5 (TMEt-
gcZB218HCJ2vTd4sZHtNFM2bGUZE8ZU)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k6_rusub_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge (l2_algstr_0 X0)) \Rightarrow (\forall X1. \\
 & \quad (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\
 & \quad (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (k6_rusub_4 \\
 X0 X1 X2 = ReplSep2 (toset (\lambda X3 : \iota. m1_subset_1 X3 (u1_struct_0 \\
 X0))) (\lambda X3 : \iota. toset (\lambda X4 : \iota. m1_subset_1 X4 (u1_struct_0 \\
 X0))) (\lambda X3 : \iota. \lambda X4 : \iota. (X3 \in X1) \wedge (X4 \in X2)) (\lambda X3 : \iota. \\
 \lambda X4 : \iota. k1_algstr_0 X0 X3 X4)))))) \quad (1)
 \end{aligned}$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (2)$$

Theorem 1

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge (l2_algstr_0 X0)) \Rightarrow (\forall X1. \\
 & \quad (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\
 (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((v1_xboole_0 \\
 X1) \vee (v1_xboole_0 X2)) \Rightarrow (v1_xboole_0 (k6_rusub_4 X0 X1 X2))))))
 \end{aligned}$$