

l39_realset2 (TMWuvoAaeR- RWeXDR3eUdLRJtsqKjmMsgD7Y)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $c4_realset2 : \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $c5_realset2 : \iota$ be given. Let $c7_realset2 : \iota$ be given. Let $r1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_realset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $c11_realset2 : \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $g2_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $np_2 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge \\ & (v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 X0) \Rightarrow (((X0 = k6_subset_1 c4_realset2 (k6_domain_1 c4_realset2 \\ & c5_realset2)) \wedge (X2 = c7_realset2)) \Rightarrow ((\neg v2_struct_0 (g2_algstr_0 \\ & X0 X1 X2)) \wedge ((v13_algstr_0 (g2_algstr_0 X0 X1 X2)) \wedge ((v2_rlvect_1 \\ & (g2_algstr_0 X0 X1 X2)) \wedge ((v3_rlvect_1 (g2_algstr_0 X0 X1 X2)) \wedge \\ & ((v4_rlvect_1 (g2_algstr_0 X0 X1 X2)) \wedge (l2_algstr_0 (g2_algstr_0 \\ & X0 X1 X2)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$c4_realset2 = np_2 \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge \\ & (v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 X0) \Rightarrow (((X0 = k6_subset_1 c4_realset2 (k6_domain_1 c4_realset2 \\ & c5_realset2)) \wedge ((X2 = c7_realset2) \wedge (r1_funct_2 (k2_zfmisc_1 \\ & X0 X0) X0 (k2_zfmisc_1 (k6_subset_1 c4_realset2 (k6_domain_1 \\ & c4_realset2 c5_realset2)) (k6_subset_1 c4_realset2 (k6_domain_1 \\ & c4_realset2 c5_realset2))) (k6_subset_1 c4_realset2 (k6_domain_1 \\ & c4_realset2 c5_realset2)) X1 (k4_realset1 c4_realset2 c5_realset2 \\ & c11_realset2)))) \Rightarrow ((\neg v2_struct_0 (g2_algstr_0 X0 X1 X2)) \wedge ((\\ & v13_algstr_0 (g2_algstr_0 X0 X1 X2)) \wedge ((v2_rlvect_1 (g2_algstr_0 \\ & X0 X1 X2)) \wedge ((v3_rlvect_1 (g2_algstr_0 X0 X1 X2)) \wedge ((v4_rlvect_1 \\ & (g2_algstr_0 X0 X1 X2)) \wedge (l2_algstr_0 (g2_algstr_0 X0 X1 X2)))))))))) \end{aligned}$$