

t24_bhsp_4

(TMTvUEJghSRdbPv9rS1g6NyzaRwGzPsfijUJ)

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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 $v3_bhsp_3 : \iota \Rightarrow o$ be given. Let $l1_bhsp_1 : \iota \Rightarrow o$ 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 $k5_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_bhsp_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_bhsp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_bhsp_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_bhsp_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v2_bhsp_1 X0) \wedge ((v3_bhsp_3 X0) \wedge (l1_bhsp_1 X0)))))))))) \Rightarrow (\forall X1. \\
 & ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers (u1_struct_0 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (u1_struct_0 X0)))))) \Rightarrow ((v1_bhsp_4 X1 X0) \Leftrightarrow (\forall X2. (m1_subset_1 X2 k1_numbers) \Rightarrow (\neg (\neg r1_xxreal_0 X2 k6_numbers) \wedge (\forall X3. (m2_subset_1 X3 k1_numbers k5_numbers) \Rightarrow (\exists X4. (m2_subset_1 X4 k1_numbers k5_numbers) \wedge (\exists X5. (m2_subset_1 X5 k1_numbers k5_numbers) \wedge ((r1_xxreal_0 X3 X4) \wedge ((r1_xxreal_0 X3 X5) \wedge (r1_xxreal_0 X2 (k3_bhsp_1 X0 (k5_algstr_0 X0 (k3_bhsp_4 X0 X1 X4) (k3_bhsp_4 X0 X1 X5)))))))))))))) \Rightarrow (\forall X1.
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v2_bhsp_1 \\
& X0) \wedge (l1_bhsp_1 X0)))))))))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge \\
& ((v1_funct_2 X1 k5_numbers (u1_struct_0 X0)) \wedge (m1_subset_1 X1 \\
& (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (u1_struct_0 X0)))))) \Rightarrow \\
& (\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow (\forall X3. \\
& (m2_subset_1 X3 k1_numbers k5_numbers) \Rightarrow (k4_bhsp_4 X0 X1 X2 X3 = \\
& k5_algstr_0 X0 (k3_bhsp_4 X0 X1 X2) (k3_bhsp_4 X0 X1 X3))))))
\end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v2_bhsp_1 \\
& X0) \wedge (v3_bhsp_3 X0) \wedge (l1_bhsp_1 X0)))))))))) \Rightarrow (\forall X1. \\
& ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers (u1_struct_0 X0)) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (u1_struct_0 \\
& X0)))))) \Rightarrow ((v1_bhsp_4 X1 X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow \\
& (\neg(\neg r1_xxreal_0 X2 k6_numbers) \wedge (\forall X3.(m2_subset_1 X3 k1_numbers \\
& k5_numbers) \Rightarrow (\exists X4.(m2_subset_1 X4 k1_numbers k5_numbers) \wedge \\
& (\exists X5.(m2_subset_1 X5 k1_numbers k5_numbers) \wedge (r1_xxreal_0 \\
& X3 X4) \wedge (r1_xxreal_0 X3 X5) \wedge (r1_xxreal_0 X2 (k3_bhsp_1 X0 (k4_bhsp_4 \\
& X0 X1 X4 X5))))))))))
\end{aligned}$$