

t18_jgraph_5

(TMKBfRzE2o6UJ96QN4TYqzfo76AnRNJVDct)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_jgraph_4 : \iota \Rightarrow \iota$ be given. Let $k13_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k12_euclid : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
 & X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow (\neg(\neg r1_xxreal_0 X0 (k1_real_1 \\
 & np_1)) \wedge (\neg r1_xxreal_0 (k18_euclid X1) k6_numbers) \wedge (\neg r1_xxreal_0 \\
 & X0 (k13_complex1 (k17_euclid X1) (k12_euclid X1))) \wedge (\exists X2. \\
 & (m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \wedge ((X2 = k3_funct_2 \\
 & (u1_struct_0 (k15_euclid np_2)) (u1_struct_0 (k15_euclid np_2)) \\
 & (k5_jgraph_4 X0) X1) \wedge (\neg(\neg r1_xxreal_0 (k18_euclid X2) k6_numbers) \wedge \\
 & (\neg r1_xxreal_0 k6_numbers (k17_euclid X2)))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
 & X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow ((r1_xxreal_0 X0 (k13_complex1 \\
 & (k17_euclid X1) (k12_euclid X1))) \Rightarrow ((r1_xxreal_0 np_1 X0) \vee ((\\
 & r1_xxreal_0 (k18_euclid X1) k6_numbers) \vee (\forall X2.(m1_subset_1 \\
 & X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow ((X2 = k3_funct_2 (u1_struct_0 \\
 & (k15_euclid np_2)) (u1_struct_0 (k15_euclid np_2)) (k5_jgraph_4 \\
 & X0) X1) \Rightarrow ((\neg r1_xxreal_0 (k18_euclid X2) k6_numbers) \wedge (r1_xxreal_0 \\
 & k6_numbers (k17_euclid X2)))))))))
 \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow (\neg(\neg r1_xxreal_0 X0 (k1_real_1 \\ & np_1)) \wedge (\neg r1_xxreal_0 np_1 X0) \wedge (\neg r1_xxreal_0 (k18_euclid \\ & X1) k6_numbers) \wedge (\exists X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ & np_2))) \wedge ((X2 = k3_funct_2 (u1_struct_0 (k15_euclid np_2)) (\\ & u1_struct_0 (k15_euclid np_2)) (k5_jgraph_4 X0) X1) \wedge (r1_xxreal_0 \\ & (k18_euclid X2) k6_numbers)))))) \end{aligned}$$